INTERNATIONAL CODE COUNCIL
2009/2010 CODE DEVELOPMENT CYCLE

PROPOSED CHANGES TO THE 2009 EDITIONS OF THE

INTERNATIONAL BUILDING CODE®

INTERNATIONAL ENERGY CONSERVATION CODE®

INTERNATIONAL EXISTING BUILDING CODE®

INTERNATIONAL FIRE CODE®

INTERNATIONAL FUEL GAS CODE®

INTERNATIONAL MECHANICAL CODE®

INTERNATIONAL PLUMBING CODE®

INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE®

INTERNATIONAL PROPERTY MAINTENANCE CODE®

INTERNATIONAL RESIDENTIAL CODE®

INTERNATIONAL WILDLAND-URBAN INTERFACE CODE®

INTERNATIONAL ZONING CODE®

October 24 2009 – November 11, 2009

Hilton Baltimore
Baltimore, MD

ICC
INTERNATIONAL CODE COUNCIL®

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INTRODUCTION

The proposed changes published herein have been submitted in accordance with established procedures and are distributed for review. The publication of these changes constitutes neither endorsement nor question of them but is in accordance with established procedures so that any interested individuals may make their views known to the relevant code committee and others similarly interested. In furtherance of this purpose, the committee will hold an open public hearing at the date and place shown below for the purpose of receiving comments and arguments for or against such proposed changes. Those who are interested in testifying on any of the published changes are expected to be represented at these hearings.

This compilation of code change proposals is available in electronic form only. As part of ICC's green initiative, ICC will no longer print and distribute this document. The compilation of code change proposals will be posted on the ICC website, and CD copies will be distributed to all interested parties on our list.

2009 ICC CODE DEVELOPMENT HEARINGS

These proposed changes will be discussed in public hearings to be held on October 24, 2009 through October 31, 2009 and November 4-11, 2009 at the Hilton Baltimore, Baltimore, Maryland. The code committees will conduct their public hearings in accordance with the schedule shown on page xxxii.

REGISTRATION AND VOTING

All members of ICC may vote on any assembly motion on proposed code changes to all International Codes. **For identification purposes, eligible voting members must register, at no cost, in order to vote.** The registration desk will be open in the lobby of the convention center according to the following schedule:

Friday, October 23rd	3:00 pm to 6:00 pm
Saturday, October 24th through Wednesday November 11th	7:30 am to 5:00 pm

Council Policy #28-Code Development (page xii) requires that ICC's membership records regarding ICC members reflect the eligible voters 10 days prior to the start of the Code Development Hearings. This process includes new as well as changes to voting status. Section 5.7.4 of CP #28 (page xix) reads as follows:

> **5.7.4 Eligible Voters:** All members of ICC in attendance at the public hearing shall be eligible to vote on floor motions. Only one vote authorized for each eligible attendee. Code Development Committee member shall be eligible to vote on floor motions. Application, whether new or updated, for ICC membership must be received by the Code Council ten days prior to the commencement of the first day of the public hearing.

As such, new membership application as well as renewal applications must be received by ICC's Member Services Department by October 14, 2009. These records will be used to verify eligible voter status for the Code Development Hearings. Members are strongly encouraged to review their membership records for accuracy well in advance of the hearings so that any necessary changes are made prior to the October 14, 2009 deadline. For information on application for new membership and membership renewal, please go to www.iccsafe.org/membership/join.html or call ICC Member Services at 1-888-ICC SAFE (422-7233)

It should be noted that a corporate member has a single vote. Only one representative of a corporate member will be issued a voting badge. ICC Staff will be contacting corporate members regarding who the designated voting representative will be.

ADVANCED REGISTRATION

You are encouraged to advance register by filling out the registration form available at www.iccsafe.org/codesforum.

CODE DEVELOPMENT PROCESS CHANGES

As noted in the posted Advisory Statement of February 4, 2009, the revised Code Development Process includes maintaining the current 3-year publication cycle with a single cycle of code development between code editions. The schedule for the 2009/2010 Code Development Cycle is the transitional schedule for the revised code development process. As noted, there will be two Final Action Hearings in 2010—one for the modified Group A, and one for the modified Group B. The codes that will comprise the Group A and Group B hearings will be announced prior to the Code Development Hearings in Baltimore. See the Code Development Process Notes included with the Schedule on page viii.

PROCEDURES

The procedures for the conduct of the public hearing are published in *Council Policy #28-Code Development (CP#28)* ("Procedures") on page xii. The attention of interested parties is specifically directed to Section 5.0 of the Procedures. These procedures indicate the conduct of, and opportunity to participate in the ICC Code Development Process. Please review these procedures carefully to familiarize yourself with the process.

There have been a number of revisions to the procedures. Included among these revisions are the following:

Section 2.3: **Supplements:** ICC will no longer produce a Supplement to each edition of the I-Codes. A new edition of the I-Codes will be based upon activity of a single code change cycle.

Section 3.3.3: **Multiple code change proposals:** A proponent is not permitted to submit multiple code changes to one section of a code unless the subject matter of each proposal is different.

Section 4.5.1: **Administrative update of standards:** Updating of standards without a change to code text (administrative update) shall be a code change proposal dealt with by the Administrative Code Development Committee. The updating of standards procedures have also changed. See discussion on updating of standards on page vi.

Section 4.7: **Code change posting:** All code change proposals are required to be posted on the ICC website 30 days before the code development hearings. Published copies will not be provided.

Section 5.2.2: **Conflict of interest:** Clarification is added that a committee member who steps down from the dais because of a conflict of interest is allowed to provide testimony from the floor on that code change proposal.

Section 5.4.6.2: **Proponent rebuttal testimony:** Where the code change proposal is submitted by multiple proponents, only one proponent of the joint submittal to be allotted additional time for rebuttal.

Section 5.5.2: **Modifications:** The chair rules a modification in or out of order. The chair's decision is final. No challenge in a point of order is allowed for this ruling.

Section 5.7.3: **Assembly Actions:** Several changes have been made to assembly actions. See explanation page v

Section 7.3.8.2: **Initial motion at final action hearings:** A successful assembly action becomes the initial motion at the final action hearings. See explanation page v.

ASSEMBLY ACTION

The procedures regarding assembly action at the Code Development Hearings have been revised to place more weight on the results of that action (see Section 5.7 of CP #28 on page viii). Some important items to note regarding assembly action are:

- A successful assembly action now requires a 2/3 majority rather than a simple majority.
- After the committee decision on a code change proposal is announced by the moderator, any one in the assembly may make a motion for assembly action.
- After a motion for assembly action is made and seconded, the moderator calls for a floor vote in accordance with Section 5.7.2. *No additional testimony will be permitted.*
- A successful assembly action becomes the initial motion considered at the Final Action Hearings. This also means that the required vote at the Final Action Hearings to uphold the assembly action is a simple majority.

MULTIPLE PART CODE CHANGE PROPOSALS

It is common for ICC to receive code change proposals for more than one code or more than 1 part of a code that is the responsibility of more than one committee. For instance, a code change proposal could be proposing related changes to the text of IBC Chapter 4 (IBC-General), IBC Chapter 7 (IBC-Fire Safety), and the IFC Chapter 27 (IFC). When this occurs, a single committee will now hear all of the parts, unless one of the parts is a change to the IRC, in which case the respective IRC committee will hear that part separately.

ADMINISTRATIVE CODE DEVELOPMENT COMMITTEE

A new committee for the 2009/2010 Code Change Cycle and going forward is the Administrative Code Development Committee. This committee will hear code change proposals to the administrative provisions of the I-Codes (Chapter 1 of each code.) The purpose of this committee is to achieve, inasmuch as possible, uniformity in the administrative provisions of all I-Codes when such uniformity is warranted.

ANALYSIS STATEMENTS

Various proposed changes published herein contain an “analysis” that appears after the proponent’s reason. These comments do not advocate action by the code committees or the voting membership for or against a proposal. The purpose of such comments is to identify pertinent information that is relevant to the consideration of the proposed change by all interested parties, including those testifying, the code committees and the voting membership. Staff analyses customarily identify such things as: conflicts and duplication within a proposed change and with other proposed changes and/or current code text; deficiencies in proposed text and/or substantiation; text problems such as wording defects and vagueness; background information on the development of current text; and staff’s review of proposed reference standards for compliance with the Procedures. Lack of an analysis indicates neither support for, nor opposition to a proposal.

REFERENCE STANDARDS

Proposed changes that include the addition of a reference to a new standard (i.e. a standard that is not currently referenced in the I-Codes.) will include in the proposal the number, title and edition of the proposed standard. This identifies to all interested parties the precise document that is being proposed and which would be included in the referenced standards chapter of the code if the proposed change is approved. Proponents of code changes which propose a new standard have been directed to forward copies of the standard to the Code Committee and an analysis statement will be posted on the ICC website indication the status of compliance of the standard with the ICC referenced standards criteria in Section 3.6 of CP #28 (see page xiv). (See the ICC Website page xi) The analysis statements for referenced standards will be posted on or before September 24, 2009. This information will also be published and made available at the hearings.

REFERENCED STANDARDS UPDATES

At the end of the agenda of the Administrative Code Development Committee is a code change proposal that is an administrative update of the referenced standards contained in the I-Codes. This code change proposal, ADM39-09/10 contains a list of standards for which the respective promulgators have indicated that the standard has been updated. The codes that these standards appear in are indicated beside each listed referenced standard. This update will then apply to every code in which the standard appears.

It should be noted that in accordance with Section 4.5.1 of CP #28 (see page xvi), standards promulgators have until December 1, 2011 to finalize and publish any updates to standards in the administrative update. If the standard is not finalized by December 1, 2011, the code will be revised to reference the previously listed year edition of that standard.

MODIFICATIONS

Those who are submitting modification for consideration by the respective Code Development Committee are required to submit a Copyright Release in order to have their modifications considered (Section 3.3.4.5 of CP #28). It is preferred that such release be executed in advance – the form is at http://www.iccsafe.org/cs/codes/publicforms.htm. Copyright release forms will also be available at the hearings. Please note that an individual need only sign one copyright release for submittals of all code change proposals, modification, and public comments in this code change cycle for which the individual might be responsible. **Please be sure to review Section 5.5.2 of CP #28 for the modification process.** The Chair of the respective code development committee rules a modification in or out of order. That ruling is final, with no challenge allowed. The proponent submitting a modification is required to supply 20 printed copies. The minimum font size must be 12 point.

CODE CORRELATION COMMITTEE

In every code change cycle, there are code change proposals that are strictly editorial. The Code Correlation Committee approves all proposals deemed editorial. A list of code correlation committee actions will be posted on the ICC website by September 24, 2009.

2009/2010 ICC CODE DEVELOPMENT SCHEDULE

STEP IN CODE DEVELOPMENT CYCLE	DATE
DEADLINE FOR RECEIPT OF APPLICATIONS FOR CODE COMMITTEES	January 2, 2009
DEADLINE FOR RECEIPT OF CODE CHANGE PROPOSALS	June 1, 2009
WEB POSTING OF "PROPOSED CHANGES TO THE I-CODES"	August 24, 2009
DISTRIBUTION DATE OF "PROPOSED CHANGES TO THE I-CODES" (Limited distribution – see notes)	October 3, 2009
CODE DEVELOPMENT HEARING (CDH) ALL CODES – see notes	**October 24 2009 – November 11, 2009** Hilton Baltimore Baltimore, MD
WEB POSTING OF "REPORT OF THE PUBLIC HEARING"	December 16, 2009
DISTRIBUTION DATE OF "REPORT OF THE PUBLIC HEARING" (Limited distribution – see notes)	January 11, 2010

IN ACCORDANCE WITH THE NEW CODE DEVELOPMENT PROCESS (see notes), THE CODES WILL BE SPLIT INTO TWO GROUPS WITH SEPARATE PUBLIC COMMENT DEADLINES AND FINAL ACTION HEARINGS

	GROUP A (see notes)	GROUP B (see notes)
DEADLINE FOR RECEIPT OF PUBLIC COMMENTS	February 8, 2010	July 1, 2010
WEB POSTING OF PUBLIC COMMENTS "FINAL ACTION AGENDA"	March 15, 2010	August 26, 2010
DISTRIBUTION DATE OF PUBLIC COMMENTS "FINAL ACTION AGENDA" (Limited distribution see notes)	April 16, 2010	September 27, 2010
FINAL ACTION HEARINGS (FAH)	**May 14 – 23, 2010** Dallas, TX	**Oct 28 – Nov 1, 1020** Charlotte, NC
ANNUAL CONFERENCES	**October 24 – November 11, 2009** 2009 ICC Annual Conference and Code Development Hearing Balitmore, MD **October 25 – November 1, 2010** 2010 ICC Annual Conference and Final Action Hearing Charlotte, NC	
RESULTING PUBLICATION	2012 – I-Codes (available April, 2011)	

Code Development Process Notes:

As noted in the posted Advisory Statement of February 4, 2009, the revised Code Development Process includes maintaining the current 3-year publication cycle with a single cycle of code development between code editions. Implemented as follows:

- Transitional Process – 2009/2010 only
    - Single Code Development Hearing (CDH) for all codes in 2009
    - Two Final Action Hearings (FAH) in 2010 – modified Groups A and B (see below)
    - Public 2012 edition in April, 2011
- New Process – 2012/2013 and going forward
    - Code Committee application deadline (all codes); June 1, 2011
    - Codes split into two groups: Group A and Group B
    - Group A: IBC; IFGC; IMC; IPC; IPSDC
        - Code change deadline: January 3, 2012
        - Code Development Hearing: April/May 2012
        - Final Action Hearing: October/November 2012 (in conjunction with Annual Conference)
    - Group B: Admin (Ch. 1 of I-Codes); IEBC; IECC; IFC; IPerfC; IPMC; IRC; IWUIC; IZC
        - Code change deadline: January 3, 2013
        - Code Development Hearing: April/May 2013
        - Final Action Hearing: October/November 2013 (in conjunction with Annual Conference)
    - Publish 2015 edition in April, 2014
    - Repeat for subsequent editions

2009/2010 Cycle Notes:

- Revised code change deadline of June 1st posted on March 19th

- Distribution date: Complimentary code development cycle document distribution will be limited to CD's mailed to those who are on ICC's code change document mailing list.

- Code Development Hearings: The Baltimore Code Development Hearings will include 12 I-Codes (no changes to the ICC Performance Code. The hearings will be held in the conventional two track format with the hearings split before and after the Annual Conference during the periods of October 24 – 31 and November 4 – 11. The specific codes and hearing order to be determined based on code change volume.

- Final Action Hearing Groupings: Final Action Hearing logistics dictate that the hearings will not be split along established Group A and B codes (see above) due to hotel commitments which limit the amount of hearing time at the October/2010 FAH versus the May/2010 FAH. Tentatively, the May/2010 FAH will include Group A codes plus certain Group B codes to be determined based on code change volume.

2009/2010 STAFF SECRETARIES

IBC-General Chapters 1-6. 12, 13, 27-34	IBC-Fire Safety Chapters 7, 8, 9, 14, 26	IBC-Means of Egress Chapters 10, 11	IBC-Structural Chapters 15-25
Kermit Robinson ICC Whittier District Office 1-888-ICC-SAFE, ext. 3317 FAX: 562/699-4522 krobinson@iccsafe.org	Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	Kim Paarlberg ICC Indianapolis Field Office 1-888-ICC-SAFE, ext 4306 FAX: 708/799-0320 kpearlberg@iccsafe.org	Alan Carr ICC NW Resource Center 1-888-ICC-SAFE, ext 7601 FAX: 425/637-8939 acarr@iccsafe.org

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IMC	ICC PC	IPMC	IPC/IPSDC
Gregg Gress ICC Chicago District Office 1-888-ICC-SAFE, ext 4343 FAX: 708/799-0320 ggress@iccsafe.org	BethTubbs ICC Northbridge Field Office 1-888-ICC-SAFE, ext 7708 FAX: 419/ 730-6531 btubbs@iccsafe.org	Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org

IRC-Building/Energy	IRC Mechanical	IRC Plumbing	IWUIC
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IZC	ADMINISTRATIVE Chapter 1 All Codes Except IRC
Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	Dave Bowman ICC Chicago District Office 1-888-ICC-SAFE, ext 4323 FAX: 708/799-0320 dbowman@iccsafe.org

SCOPING REVISIONS – WITHIN THE IBC

The 2009/2010 Staff Secretaries assignments on page ix indicate which chapters of the International Building Code are generally within the responsibility of each IBC Code Committee. However, within each of these IBC Chapters are subjects that are most appropriately maintained by another IBC Code Committee. For example, the provisions of Section 3008.1 deal with occupant evacuation elevators. Therefore, even though Chapter 30 is within the responsibility of the IBC General Committee, this section would most appropriately be maintained by the IBC Means of Egress Committee. The following table indicates responsibilities by IBC Code Committees other than the main committee for those chapters, for code changes submitted for the 2009/2010 Cycle.

SECTION	CHAPTER MAINTAINED BY	SECTION MAINTAINED BY	CODE CHANGES
403.2.3	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
403.5.1	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
403.5.2	IBC-General	IBC-Means of Egress	G46
403.5.4	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
403.5.4	IBC-General	IBC-Means of Egress	G47
403.6.1	IBC-General	IBC-Means of Egress	G48, G49
408.3.8	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
410.5.3.1	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
419.3.0	IBC-General	IBC-Means of Egress	G79
1505.1.0	IBC-Structural	IBC-Fire Safety	S10, S11
1505.8.0	IBC-Structural	IBC-Fire Safety	S12, S13
1507.16.0	IBC-Structural	IBC-Fire Safety	S10, S11
1508.1.0	IBC-Structural	IBC-Fire Safety	S24
1508.2.0	IBC-Structural	IBC-Fire Safety	S25
1509.0.0	IBC-Structural	IBC-General	S26, S27
1509.6.(new)	IBC-Structural	IBC-General	S28
1704.15.0	IBC-Structural	IBC-Fire Safety	S126, S127,S128
3007.1.0	IBC-General	IBC-Means of Egress	G48,G157
3007.2.(new)	IBC-General	IBC-Means of Egress	G158, G159
3007.2.0	IBC-General	IBC-Means of Egress	G160
3007.3.(new)	IBC-General	IBC-Means of Egress	G158, G161
3007.4.(new)	IBC-General	IBC-Means of Egress	G162
3007.4.2	IBC-General	IBC-Means of Egress	G163
3007.4.3	IBC-General	IBC-Means of Egress	G176
3007.5.1.(NEW)	IBC-General	IBC-Means of Egress	G164
3007.7.1	IBC-General	IBC-Means of Egress	G165, G166
3007.8.0	IBC-General	IBC-Means of Egress	G167
3008.1.0	IBC-General	IBC-Means of Egress	G168, G170
3008.1.1	IBC-General	IBC-Means of Egress	G169
3008.10.0	IBC-General	IBC-Means of Egress	G174
3008.10.1	IBC-General	IBC-Means of Egress	G175
3008.11.3	IBC-General	IBC-Means of Egress	G176
3008.11.5	IBC-General	IBC-Means of Egress	G177
3008.3.(NEW)	IBC-General	IBC-Means of Egress	G165, G166
3008.4.(NEW)	IBC-General	IBC-Means of Egress	G171
3008.4.0	IBC-General	IBC-Means of Egress	G46
3008.7.0	IBC-General	IBC-Means of Egress	G172
3008.9.0	IBC-General	IBC-Means of Egress	G173
3401.4.0	IBC-General	IBC-Structural	G190
3401.4.1	IBC-General	IBC-Structural	G191
3401.4.3	IBC-General	IBC-Structural	G190
3401.5.(NEW)	IBC-General	IBC-Structural	G192

SECTION	CHAPTER MAINTAINED BY	SECTION MAINTAINED BY	CODE CHANGES
3402.1.0	IBC-General	IBC-Structural	G193
3403.4.1	IBC-General	IBC-Structural	G190
3404.4.1	IBC-General	IBC-Structural	G190
3405.1.1	IBC-General	IBC-Structural	G192
3405.2.0	IBC-General	IBC-Structural	G193, G194
3405.2.1	IBC-General	IBC-Structural	G193, G190
3405.2.2	IBC-General	IBC-Structural	G193
3405.2.3	IBC-General	IBC-Structural	G193, G195
3405.3.0	IBC-General	IBC-Structural	G193
3405.4.0	IBC-General	IBC-Structural	G193, G194
3405.5.0	IBC-General	IBC-Structural	G196
3408.4.0	IBC-General	IBC-Structural	G190, G197
3408.4.0	IBC-General	IBC-Structural	G190
403.2.3	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
403.5.1	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
403.5.2	IBC-General	IBC-Means of Egress	G46
403.5.4	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
403.5.4	IBC-General	IBC-Means of Egress	G47
403.6.1	IBC-General	IBC-Means of Egress	G48, G49
408.3.8	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
410.5.3.1	IBC-General	IBC-Structural	E5 Part I (Heard by IBC-MOE)
419.3.0	IBC-General	IBC-Means of Egress	G79

ICC WEBSITE – WWW.ICCSAFE.ORG

While great care has been exercised in the publication of this document, errata to proposed changes may occur. Errata, if any, identified prior to the Code Development Hearings will be posted on the ICC website at http://www.iccsafe.org. Users are encouraged to periodically review the ICC Website for updates to errata to the 2009/2010 Code Development Cycle Proposed Changes. Additionally, analysis statements for code changes which propose a new referenced standard will be updated to reflect the staff review of the standard for compliance with Section 3.6 of the Procedures.

CP# 28-05 CODE DEVELOPMENT

Approved: 9/24/05
Revised: 2/27/09

CP # 28-05 is an update to *ICC's Code Development Process for the International Codes* dated May 15, 2004.

1.0 Introduction

1.1 Purpose: The purpose of this Council Policy is to prescribe the Rules of Procedure utilized in the continued development and maintenance of the International Codes (Codes).

1.2 Objectives: The ICC Code Development Process has the following objectives:

1.2.1 The timely evaluation and recognition of technological developments pertaining to construction regulations.
1.2.2 The open discussion of proposals by all parties desiring to participate.
1.2.3 The final determination of Code text by officials representing code enforcement and regulatory agencies and by honorary members.

1.3 Code Publication: The ICC Board of Directors (ICC Board) shall determine the title and the general purpose and scope of each Code published by the ICC.

1.3.1 Code Correlation: The provisions of all Codes shall be consistent with one another so that conflicts between the Codes do not occur. Where a given subject matter or code text could appear in more than one Code, the ICC Board shall determine which Code shall be the primary document, and therefore which code development committee shall be responsible for review and maintenance of the code text. Duplication of content or text between Codes shall be limited to the minimum extent necessary for practical usability of the Codes, as determined in accordance with Section 4.4.

1.4 Process Maintenance: The review and maintenance of the Code Development Process and these Rules of Procedure shall be by the ICC Board. The manner in which ICC codes are developed embodies core principles of the organization. One of those principles is that the final content of ICC codes is determined by a majority vote of the governmental and honorary members. It is the policy of the Board that there shall be no change to this principle without the affirmation of two-thirds of the governmental and honorary members responding.

1.5 Secretariat: The Chief Executive Officer shall assign a Secretariat for each of the Codes. All correspondence relating to code change proposals and public comments shall be addressed to the Secretariat.

1.6 Video Taping: Individuals requesting permission to video tape any meeting, or portion thereof, shall be required to provide the ICC with a release of responsibility disclaimer and shall acknowledge that they have insurance coverage for liability and misuse of video tape materials. Equipment and the process used to video tape shall, in the judgment of the ICC Secretariat, be conducted in a manner that is not disruptive to the meeting. The ICC shall not be responsible for equipment, personnel or any other provision necessary to accomplish the videotaping. An unedited copy of the video tape shall be forwarded to ICC within 30 days of the meeting.

2.0 Code Development Cycle

2.1 Intent: The code development cycle shall consist of the complete consideration of code change proposals in accordance with the procedures herein specified, commencing with the deadline for submission of code change proposals (see Section 3.5) and ending with publication of final action on the code change proposals (see Section 7.6).

2.2 **New Editions:** The ICC Board shall determine the schedule for publishing new editions of the Codes. Each new edition shall incorporate the results of the code development activity since the last edition.

2.3 **Supplements:** The results of code development activity between editions may be published.

2.4 **Emergency Procedures:** In the event that the ICC Board determines that an emergency amendment to any Code is warranted, the same may be adopted by the ICC Board. Such action shall require an affirmative vote of at least two-thirds of the ICC Board.

The ICC membership shall be notified within ten days after the ICC Boards' official action of any emergency amendment. At the next Annual Business Meeting, any emergency amendment shall be presented to the members for ratification by a majority of the ICC Governmental Member Representatives and Honorary Members present and voting.

All code revisions pursuant to these emergency procedures and the reasons for such corrective action shall be published as soon as practicable after ICC Board action. Such revisions shall be identified as an emergency amendment.

Emergency amendments to any Code shall not be considered as a retro-active requirement to the Code. Incorporation of the emergency amendment into the adopted Code shall be subjected to the process established by the adopting authority.

3.0 Submittal of Code Change Proposals

3.1 **Intent:** Any interested person, persons or group may submit a code change proposal which will be duly considered when in conformance to these Rules of Procedure.

3.2 **Withdrawal of Proposal:** A code change proposal may be withdrawn by the proponent (WP) at any time prior to Final Action Consideration of that proposal. A withdrawn code change proposal shall not be subject to a public hearing, motions, or Final Action Consideration.

3.3 **Form and Content of Code Change Submittals:** Each code change proposal shall be submitted separately and shall be complete in itself. Each submittal shall contain the following information:

3.3.1 **Proponent:** Each code change proposal shall include the name, title, mailing address, telephone number, and email address of the proponent.

3.3.1.1 If a group, organization or committee submits a code change proposal, an individual with prime responsibility shall be indicated.

3.3.1.2 If a proponent submits a code change on behalf of a client, group, organization or committee, the name and mailing address of the client, group, organization or committee shall be indicated.

3.3.2 **Code Reference:** Each code change proposal shall relate to the applicable code sections(s) in the latest edition of the Code.

3.3.2.1 If more than one section in the Code is affected by a code change proposal, appropriate proposals shall be included for all such affected sections.

3.3.2.2 If more than one Code is affected by a code change proposal, appropriate proposals shall be included for all such affected Codes and appropriate cross referencing shall be included in the supporting information.

3.3.3 **Multiple code change proposals to a code section.** A proponent shall not submit multiple code change proposals to the same code section. When a proponent submits multiple code change proposals to the same section, the proposals shall be considered as incomplete proposals and processed in accordance with Section 4.3. This restriction shall not apply to code change proposals that attempt to address differing subject matter within a code section.

3.3.4 **Text Presentation:** The text proposal shall be presented in the specific wording desired with deletions shown struck out with a single line and additions shown underlined with a single line.

3.3.4.1 A charging statement shall indicate the referenced code section(s) and whether the proposal is intended to be an addition, a deletion or a revision to existing Code text.

3.3.4.2 Whenever practical, the existing wording of the text shall be preserved with only such deletions and additions as necessary to accomplish the desired change.

3.3.4.3 Each proposal shall be in proper code format and terminology.

3.3.4.4 Each proposal shall be complete and specific in the text to eliminate unnecessary confusion or misinterpretation.

3.3.4.5 The proposed text shall be in mandatory terms.

3.3.5 **Supporting Information:** Each code change proposal shall include sufficient supporting information to indicate how the proposal is intended to affect the intent and application of the Code.

3.3.5.1 **Purpose:** The proponent shall clearly state the purpose of the proposed code change (e.g. clarify the Code; revise outdated material; substitute new or revised material for current provisions of the Code; add new requirements to the Code; delete current requirements, etc.)

3.3.5.2 **Reasons:** The proponent shall justify changing the current Code provisions, stating why the proposal is superior to the current provisions of the Code. Proposals which add or delete requirements shall be supported by a logical explanation which clearly shows why the current Code provisions are inadequate or overly restrictive, specifies the shortcomings of the current Code provisions and explains how such proposals will improve the Code.

3.3.5.3 **Substantiation:** The proponent shall substantiate the proposed code change based on technical information and substantiation. Substantiation provided which is reviewed in accordance with Section 4.2 and determined as not germane to the technical issues addressed in the proposed code change shall be identified as such. The proponent shall be notified that the proposal is considered an incomplete proposal in accordance with Section 4.3 and the proposal shall be held until the deficiencies are corrected. The proponent shall have the right to appeal this action in accordance with the policy of the ICC Board. The burden of providing substantiating material lies with the proponent of the code change proposal.

3.3.5.4 **Bibliography:** The proponent shall submit a bibliography of any substantiating material submitted with the code change proposal. The bibliography shall be published with the code change and the proponent shall make the substantiating materials available for review at the appropriate ICC office and during the public hearing.

3.3.5.5 **Copyright Release:** The proponent of code change proposals, floor modifications and public comments shall sign a copyright release reading: “I hereby grant and assign to ICC all rights in copyright I may have in any authorship contributions I make to ICC in connection with any proposal and public comment, in its original form submitted or revised form, including written and verbal modifications submitted in accordance Section 5.5.2. I understand that I will have no rights in any ICC publications that use such contributions in the form submitted by me or another similar form and certify that such contributions are not protected by the copyright of any other person or entity.”

3.3.5.6 **Cost Impact:** The proponent shall indicate one of the following regarding the cost impact of the code change proposal: 1) the code change proposal will increase the cost of construction; or 2) the code change proposal will not increase the cost of construction. This information will be included in the published code change proposal.

3.4 **Number:** One copy of each code change proposal, two copies of each proposed new referenced standard and one copy of all substantiating information shall be submitted. Additional copies may be requested when determined necessary by the Secretariat to allow such information to be distributed to the code development committee. Where such additional copies are requested, it shall be the responsibility of the proponent to send such copies to the respective code development committee. A copy of the code change proposal in electronic form is preferred.

3.5 **Submittal Deadline:** Each code change proposal shall be received at the office of the Secretariat by the posted deadline. Such posting shall occur no later than 120 days prior to the code change deadline. The submitter of a proposed code change is responsible for the proper and timely receipt of all pertinent materials by the Secretariat.

3.6 **Referenced Standards:** In order for a standard to be considered for reference or to continue to be referenced by the Codes, a standard shall meet the following criteria:

3.6.1 Code References:

3.6.1.1 The standard, including title and date, and the manner in which it is to be utilized shall be specifically referenced in the Code text.
3.6.1.2 The need for the standard to be referenced shall be established.

3.6.2 Standard Content:

3.6.2.1 A standard or portions of a standard intended to be enforced shall be written in mandatory language.
3.6.2.2 The standard shall be appropriate for the subject covered.
3.6.2.3 All terms shall be defined when they deviate from an ordinarily accepted meaning or a dictionary definition.
3.6.2.4 The scope or application of a standard shall be clearly described.
3.6.2.5 The standard shall not have the effect of requiring proprietary materials.
3.6.2.6 The standard shall not prescribe a proprietary agency for quality control or testing.
3.6.2.7 The test standard shall describe, in detail, preparation of the test sample, sample selection or both.
3.6.2.8 The test standard shall prescribe the reporting format for the test results. The format shall identify the key performance criteria for the element(s) tested.
3.6.2.9 The measure of performance for which the test is conducted shall be clearly defined in either the test standard or in Code text.
3.6.2.10 The standard shall not state that its provisions shall govern whenever the referenced standard is in conflict with the requirements of the referencing Code.
3.6.2.11 The preface to the standard shall announce that the standard is promulgated according to a consensus procedure.

3.6.3 Standard Promulgation:

3.6.3.1 Code change proposals with corresponding changes to the code text which include a reference to a proposed new standard or a proposed update of an existing referenced shall comply with this section. The standard shall be completed and readily available prior to Final Action Consideration based on the cycle of code development which includes the proposed code change proposal. In order for a new standard to be considered for reference by the Code, such standard shall be submitted in at least a consensus draft form in accordance with Section 3.4. Updating of standards without corresponding code text changes shall be accomplished administratively in accordance with Section 4.5.
3.6.3.2 The standard shall be developed and maintained through a consensus process such as ASTM or ANSI.

4.0 Processing of Proposals

4.1 Intent: The processing of code change proposals is intended to ensure that each proposal complies with these Rules of Procedure and that the resulting published proposal accurately reflects that proponent's intent.

4.2 Review: Upon receipt in the Secretariat's office, the code change proposals will be checked for compliance with these Rules of Procedure as to division, separation, number of copies, form, language, terminology, supporting statements and substantiating data. Where a code change proposal consists of multiple parts which fall under the maintenance responsibilities of different code committees, the Secretariat shall determine the code committee responsible for determining the committee action in accordance with Section 5.6.

4.3 Incomplete Proposals: When a code change proposal is submitted with incorrect format, without the required information or judged as not in compliance with these Rules of Procedure, the Secretariat shall notify the proponent of the specific deficiencies and the proposal shall be held until the deficiencies are corrected, with a final date set for receipt of a corrected submittal. If the Secretariat receives the corrected proposal after the final date, the proposal shall be held over until the next code development cycle. Where there are otherwise no deficiencies addressed by this section, a proposal that incorporates a new referenced standard shall be processed with an analysis of referenced standard's compliance with the criteria set forth in Section 3.6.

4.4 Editorial: The Chief Executive Officer shall have the authority at all times to make editorial and format changes to the Code text, or any approved changes, consistent with the intent, provisions and style of the Code. An editorial or format change is a text change that does not affect the scope or application of the code requirements.

4.5 Updating Standards:

4.5.1 Standards referenced in the 2012 Edition of the I-Codes: The updating of standards referenced by the Codes shall be accomplished administratively by the Administrative code development committee in accordance with these full procedures except that the deadline for availability of the updated standard and receipt by the Secretariat shall be December 1, 2011. The published version of the 2012 Code which references the standard will refer to the updated edition of the standard. If the standard is not available by the deadline, the edition of the standard as referenced by the newly published Code shall revert back to the reference contained in the previous edition and an errata to the Code issued Multiple standards to be updated may be included in a single proposal.

4.5.2 Standards referenced in the 2015 Edition and following Editions of the I-Codes: The updating of standards referenced by the Codes shall be accomplished administratively by the Administrative code development committee in accordance with these full procedures except that multiple standards to be updated may be included in a single proposal. The standard shall be completed and readily available prior to Final Action Consideration of the Administrative code change proposal which includes the proposed update.

4.6 Preparation: All code change proposals in compliance with these procedures shall be prepared in a standard manner by the Secretariat and be assigned separate, distinct and consecutive numbers. The Secretariat shall coordinate related proposals submitted in accordance with Section 3.3.2 to facilitate the hearing process.

4.7 Publication: All code change proposals shall be posted on the ICC website at least 30 days prior to the public hearing on those proposals and shall constitute the agenda for the public hearing. Code change proposals which have not been published shall not be considered.

5.0 Public Hearing

5.1 Intent: The intent of the public hearing is to permit interested parties to present their views including the cost and benefits on the code change proposals on the published agenda. The code development committee will consider such comments as may be presented in the development of their action on the disposition of such proposals. At the conclusion of the code development committee deliberations, the committee action on each code change proposal shall be placed before the hearing assembly for consideration in accordance with Section 5.7.

5.2 Committee: The Code Development Committees shall be appointed by the applicable ICC Council.

5.2.1 Chairman/Moderator: The Chairman and Vice-Chairman shall be appointed by the Steering Committee on Councils from the appointed members of the committee. The ICC President shall appoint one or more Moderators who shall act as presiding officer for the public hearing.

5.2.2 Conflict of Interest: A committee member shall withdraw from and take no part in those matters with which the committee member has an undisclosed financial, business or property interest. The committee member shall not participate in any committee discussion on the matter or any committee vote. Violation thereof shall result in the immediate removal of the committee member from the committee. A committee member who is a proponent of a proposal shall not participate in any committee discussion on the matter or any committee vote. Such committee member shall be permitted to participate in the floor discussion in accordance with Section 5.5 by stepping down from the dais.

5.2.3 Representation of Interest: Committee members shall not represent themselves as official or unofficial representatives of the ICC except at regularly convened meetings of the committee.

5.2.4 Committee Composition: The committee may consist of representation from multiple interests. A minimum of thirty-three and one-third percent (33.3%) of the committee members shall be regulators.

5.3 Date and Location: The date and location of each public hearing shall be announced not less than 60 days prior to the date of the public hearing.

5.4 General Procedures: *The Robert's Rules of Order* shall be the formal procedure for the conduct of the public hearing except as a specific provision of these Rules of Procedure may otherwise dictate. A quorum shall consist of a majority of the voting members of the committee.

5.4.1 Chair Voting: The Chairman of the committee shall vote only when the vote cast will break a tie vote of the committee.

5.4.2 Open Meetings: Public hearings of the Code Development Committees are open meetings. ` Any interested person may attend and participate in the Floor Discussion and Assembly Consideration portions of the hearing. Only eligible voters (see Section 5.7.4) are permitted to vote on Assembly Considerations. Only Code Development Committee members may participate in the Committee Action portion of the hearings (see Section 5.6).

5.4.3 Presentation of Material at the Public Hearing: Information to be provided at the hearing shall be limited to verbal presentations and modifications submitted in accordance with Section 5.5.2. Audio-visual presentations are not permitted. Substantiating material submitted in accordance with Section 3.3.4.4 and other material submitted in response to a code change proposal shall be located in a designated area in the hearing room and shall not be distributed to the code development committee at the public hearing.

5.4.4 Agenda Order: The Secretariat shall publish an agenda for each public hearing, placing individual code change proposals in a logical order to facilitate the hearing. Any public hearing attendee may move to revise the agenda order as the first order of business at the public hearing, or at any time during the hearing except while another proposal is being discussed. Preference shall be given to grouping like subjects together, and for moving items back to a later position on the agenda as opposed to moving items forward to an earlier position. A motion to revise the agenda order is subject to a 2/3 vote of those present and voting.

5.4.5 Reconsideration: There shall be no reconsideration of a proposed code change after it has been voted on by the committee in accordance with Section 5.6; or, in the case of assembly consideration, there shall be no reconsideration of a proposed code change after it has been voted on by the assembly in accordance with Section 5.7.

5.4.6 Time Limits: Time limits shall be established as part of the agenda for testimony on all proposed changes at the beginning of each hearing session. Each person requesting to testify on a change shall be given equal time. In the interest of time and fairness to all hearing participants, the Moderator shall have limited authority to modify time limitations on debate. The Moderator shall have the authority to adjust time limits as necessary in order to complete the hearing agenda.

5.4.6.1 Time Keeping: Keeping of time for testimony by an individual shall be by an automatic timing device. Remaining time shall be evident to the person testifying. Interruptions during testimony shall not be tolerated. The Moderator shall maintain appropriate decorum during all testimony.

5.4.6.2 Proponent Testimony: The Proponent is permitted to waive an initial statement. The Proponent shall be permitted to have the amount of time that would have been allocated during the initial testimony period plus the amount of time that would be allocated for rebuttal. Where the code change proposal is submitted by multiple proponents, this provision shall permit only one proponent of the joint submittal to be allotted additional time for rebuttal.

5.4.7 Points of Order: Any person participating in the public hearing may challenge a procedural ruling of the Moderator or the Chairman. A majority vote of the eligible voters as determined in Section 5.7.4 shall determine the decision.

5.5 Floor Discussion: The Moderator shall place each code change proposal before the hearing for discussion by identifying the proposal and by regulating discussion as follows:

5.5.1 Discussion Order:

1. *Proponents.* The Moderator shall begin by asking the proponent and then others in support of the proposal for their comments.
2. *Opponents.* After discussion by those in support of a proposal, those opposed hereto, if any, shall have the opportunity to present their views.
3. *Rebuttal in support.* Proponents shall then have the opportunity to rebut points raised by the opponents.
4. *Rerebuttal in opposition.* Opponents shall then have the opportunity to respond to the proponent's rebuttal.

5.5.2 Modifications: Modifications to proposals may be suggested from the floor by any person participating in the public hearing. The person proposing the modification is deemed to be the proponent of the modification.

5.5.2.1 Submission and Written Copies. All modifications must be written, unless determined by the Chairman to be either editorial or minor in nature. The modification proponent shall provide 20 copies to the Secretariat for distribution to the committee.

5.5.2.2 Criteria. The Chairman shall rule proposed modifications in or out of order before they are discussed on the floor. A proposed modification shall be ruled out of order if it:

1. is not legible, unless not required to be written in accordance with Section 5.5.2.1; or
2. changes the scope of the original proposal; or
3. is not readily understood to allow a proper assessment of its impact on the original proposal or the code.

The ruling of the Chairman on whether or not the modification is in or out of order shall be final and is not subject to a point of order in accordance with Section 5.4.7.

5.5.2.3 Testimony. When a modification is offered from the floor and ruled in order by the Chairman, a specific floor discussion on that modification is to commence in accordance with the procedures listed in Section 5.5.1.

5.6 Committee Action: Following the floor discussion of each code change proposal, one of the following motions shall be made and seconded by members of the committee.

1. Approve the code change proposal as submitted (AS) or
2. Approve the code change proposal as modified with specific modifications (AM), or
3. Disapprove the code change proposal (D)

Discussion on this motion shall be limited to Code Development Committee members. If a committee member proposes a modification which had not been proposed during floor discussion, the Chairman shall rule on the modification in accordance with Section 5.5.2.2 If a committee member raises a matter of issue, including a proposed modification, which has not been proposed or discussed during the floor discussion, the Moderator shall suspend the committee discussion and shall reopen the floor discussion for comments on the specific matter or issue. Upon receipt of all comments from the floor, the Moderator shall resume committee discussion.

The Code Development Committee shall vote on each motion with the majority dictating the committee's action. Committee action on each code change proposal shall be completed when one of the motions noted above has been approved. Each committee vote shall be supported by a reason.

The Code Development Committee shall maintain a record of its proceedings including the action on each code change proposal.

5.7 Assembly Consideration: At the conclusion of the committee's action on a code change proposal and before the next code change proposal is called to the floor, the Moderator shall ask for a motion from the public hearing attendees who may object to the committee's action. If a motion in accordance with Section 5.7.1 is not brought forward on the committee's action, the results of the public hearing shall be established by the committee's action. If a motion in accordance with Section 5.7.1 is brought forward and

is sustained in accordance with Section 5.7.3, both the committee's action and the assemblies' action shall be reported as the results of the public hearing. Where a motion is sustained in accordance with Section 5.7.3, such action shall be the initial motion considered at Final Action Consideration in accordance with Section 7.3.8.2.

5.7.1 Floor Motion: Any attendee may raise an objection to the committee's action in which case the attendee will be able to make a motion to:

1. Approve the code change proposal as submitted from the floor (ASF), or
2. Approve the code change proposal as modified from the floor (AMF) with a specific modification that has been previously offered from the floor and ruled in order by the Chairman during floor discussion (see Section 5.5.2) or has been offered by a member of the Committee and ruled in order by the Chairman during committee discussion (see Section 5.6), or
3. Disapprove the code change proposal from the floor (DF).

5.7.2 **Discussion:** On receipt of a second to the floor motion, the Moderator shall place the motion before the assembly for a vote. No additional testimony shall be permitted.

5.7.3 **Assembly Action:** The assembly action shall be in accordance with the following majorities based on the number of votes cast by eligible voters (See 5.7.4).

Committee Action	Desired Assembly Action		
	ASF	AMF	DF
AS	--	2/3 Majority	2/3 Majority
AM	2/3 Majority	2/3 Majority	2/3 Majority
D	2/3 Majority	2/3 Majority	--

5.7.4 **Eligible Voters:** All members of ICC in attendance at the public hearing shall be eligible to vote on floor motions. Only one vote authorized for each eligible attendee. Code Development Committee members shall be eligible to vote on floor motions. Application, whether new or updated, for ICC membership must be received by the Code Council ten days prior to the commencement of the first day of the public hearing.

5.8 **Report of the Public Hearing:** The results of the public hearing, including committee action and successful assembly action, shall be posted on the ICC website not less than 60 days prior to Final Action Consideration except as approved by the ICC Board.

6.0 Public Comments

6.1 **Intent:** The public comment process gives attendees at the Final Action Hearing an opportunity to consider specific objections to the results of the public hearing and more thoughtfully prepare for the discussion for Final Action Consideration. The public comment process expedites the Final Action Consideration at the Final Action Hearing by limiting the items discussed to the following:

6.1.1 Consideration of items for which a public comment has been submitted; and
6.1.2 Consideration of items which received a successful assembly action at the public hearing.

6.2 **Deadline:** The deadline for receipt of a public comment to the results of the public hearing shall be announced at the public hearing but shall not be less than 30 days from the availability of the report of the results of the public hearing (see Section 5.8).

6.3 **Withdrawal of Public Comment:** A public comment may be withdrawn by the public commenter at any time prior to Final Action Consideration of that comment. A withdrawn public comment shall not be subject to Final Action Consideration. If the only public comment to a code change proposal is withdrawn by the public commenter prior to the vote on the consent agenda in accordance with Section 7.3.4, the proposal shall be considered as part of the consent agenda. If the only public comment to a code change proposal is withdrawn by the public commenter after the vote on the consent agenda in accordance with Section 7.3.4, the proposal shall continue as part of the individual consent agenda in accordance with Section 7.3.5, however the public comment shall not be subject to Final Action Consideration.

6.4 **Form and Content of Public Comments:** Any interested person, persons, or group may submit a public comment to the results of the public hearing which will be considered when in conformance to these requirements. Each public comment to a code change proposal shall be submitted separately and shall be complete in itself. Each public comment shall contain the following information:

6.4.1 **Public comment:** Each public comment shall include the name, title, mailing address, telephone number and email address of the public commenter. If group, organization, or committee submits a public comment, an individual with prime responsibility shall be indicated. If a public comment is submitted on behalf a client, group, organization or committee, the name and mailing address of the client, group, organization or committee shall be indicated. The scope of the public comment shall be consistent with the scope of the original code change proposal, committee action or successful assembly action. Public comments which are determined as not within the scope of the code change proposal, committee action or successful assembly action shall be identified as such. The public commenter shall be notified that the public comment is considered an incomplete public comment in accordance with Section 6.5.1 and the public comment shall be held until the deficiencies are corrected. A copyright release in accordance with Section 3.3.4.5 shall be provided with the public comment.

6.4.2 **Code Reference:** Each public comment shall include the code change proposal number and the results of the public hearing, including successful assembly actions, on the code change proposal to which the public comment is directed.

6.4.3 **Multiple public comments to a code change proposal.** A proponent shall not submit multiple public comments to the same code change proposal. When a proponent submits multiple public comments to the same code change proposal, the public comments shall be considered as incomplete public comments and processed in accordance with Section 6.5.1. This restriction shall not apply to public comments that attempt to address differing subject matter within a code section.

6.4.4 **Desired Final Action:** The public comment shall indicate the desired final action as one of the following:

1. Approve the code change proposal as submitted (AS), or
2. Approve the code change proposal as modified (AM) by one or more specific modifications published in the Results of the Public Hearing or published in a public comment, or
3. Disapprove the code change proposal (D)

6.4.5 **Supporting Information:** The public comment shall include in a statement containing a reason and justification for the desired final action on the code change proposal. Reasons and justification which are reviewed in accordance with Section 6.4 and determined as not germane to the technical issues addressed in the code change proposal or committee action shall be identified as such. The public commenter shall be notified that the public comment is considered an incomplete public comment in accordance with Section 6.5.1 and the public comment shall be held until the deficiencies are corrected. The public commenter shall have the right to appeal this action in accordance with the policy of the ICC Board. A bibliography of any substantiating material submitted with a public comment shall be published with the public comment and the substantiating material shall be made available at the Final Action Hearing.

6.4.6 **Number:** One copy of each public comment and one copy of all substantiating information shall be submitted. Additional copies may be requested when determined necessary by the Secretariat. A copy of the public comment in electronic form is preferred.

6.5 **Review:** The Secretariat shall be responsible for reviewing all submitted public comments from an editorial and technical viewpoint similar to the review of code change proposals (See Section 4.2).

6.5.1 **Incomplete Public Comment:** When a public comment is submitted with incorrect format, without the required information or judged as not in compliance with these Rules of Procedure, the public comment shall not be processed. The Secretariat shall notify the public commenter of the specific deficiencies and the public comment shall be held until the deficiencies are corrected, or the public comment shall be returned to the public commenter with instructions to correct the deficiencies with a final date set for receipt of the corrected public comment.

6.5.2 **Duplications**: On receipt of duplicate or parallel public comments, the Secretariat may consolidate such public comments for Final Action Consideration. Each public commenter shall be notified of this action when it occurs.

6.5.3 **Deadline:** Public comments received by the Secretariat after the deadline set for receipt shall not be published and shall not be considered as part of the Final Action Consideration.

6.6 **Publication:** The public hearing results on code change proposals that have not been public commented and the code change proposals with public commented public hearing results and successful assembly actions shall constitute the Final Action Agenda. The Final Action Agenda shall be posted on the ICC website at least 30 days prior to Final Action consideration.

7.0 Final Action Consideration

7.1 **Intent:** The purpose of Final Action Consideration is to make a final determination of all code change proposals which have been considered in a code development cycle by a vote cast by eligible voters (see Section 7.4).

7.2 **Agenda:** The final action consent agenda shall be comprised of proposals which have neither an assembly action nor public comment. The agenda for public testimony and individual consideration shall be comprised of proposals which have a successful assembly action or public comment (see Sections 5.7 and 6.0).

7.3 **Procedure:** *The Robert's Rules of Order* shall be the formal procedure for the conduct of the Final Action Consideration except as these Rules of Procedure may otherwise dictate.

7.3.1 Open Meetings: Public hearings for Final Action Consideration are open meetings. Any interested person may attend and participate in the Floor Discussion.

7.3.2 Agenda Order: The Secretariat shall publish an agenda for Final Action Consideration, placing individual code change proposals and public comments in a logical order to facilitate the hearing. The proponents or opponents of any proposal or public comment may move to revise the agenda order as the first order of business at the public hearing, or at any time during the hearing except while another proposal is being discussed. Preference shall be given to grouping like subjects together and for moving items back to a later position on the agenda as opposed to moving items forward to an earlier position. A motion to revise the agenda order is subject to a 2/3 vote of those present and voting.

7.3.3 Presentation of Material at the Public Hearing: Information to be provided at the hearing shall be limited to verbal presentations. Audio-visual presentations are not permitted. Substantiating material submitted in accordance with Section 6.4.4 and other material submitted in response to a code change proposal or public comment shall be located in a designated area in the hearing room.

7.3.4 Final Action Consent Agenda: The final action consent agenda (see Section 7.2) shall be placed before the assembly with a single motion for final action in accordance with the results of the public hearing. When the motion has been seconded, the vote shall be taken with no testimony being allowed. A simple majority (50% plus one) based on the number of votes cast by eligible voters shall decide the motion.

7.3.5 Individual Consideration Agenda: Upon completion of the final action consent vote, all proposed changes not on the final action consent agenda shall be placed before the assembly for individual consideration of each item (see Section 7.2).

7.3.6 Reconsideration: There shall be no reconsideration of a proposed code change after it has been voted on in accordance with Section 7.3.8.

7.3.7 Time Limits: Time limits shall be established as part of the agenda for testimony on all proposed changes at the beginning of each hearing session. Each person requesting to testify on a change shall be given equal time. In the interest of time and fairness to all hearing participants, the Moderator shall have limited authority to modify time limitations on debate. The Moderator shall have the authority to adjust time limits as necessary in order to complete the hearing agenda.

7.3.7.1 Time Keeping: Keeping of time for testimony by an individual shall be by an automatic timing device. Remaining time shall be evident to the person testifying. Interruptions during testimony shall not be tolerated. The Moderator shall maintain appropriate decorum during all testimony.

7.3.8 Discussion and Voting: Discussion and voting on proposals being individually considered shall be in accordance with the following procedures:

7.3.8.1 Allowable Final Action Motions: The only allowable motions for final action are Approval as Submitted, Approval as Modified by one or more modifications published in the Final Action Agenda, and Disapproval.

7.3.8.2 Initial Motion: The Code Development Committee action shall be the initial motion considered, unless there was a successful assembly action in accordance with Section 5.7.3. If there was a successful assembly action, it shall be the initial motion considered. If the assembly action motion fails, the code development committee action shall become the next motion considered.

7.3.8.3 Motions for Modifications: Whenever a motion under consideration is for Approval as Submitted or Approval as Modified, a subsequent motion and second for a modification published in the Final Action Agenda may be made (see Section 6.4.3). Each subsequent motion for modification, if any, shall be individually discussed and voted before returning to the main motion. A two-thirds majority based on the number of votes cast by eligible voters shall be required for a successful motion on all modifications.

7.3.8.4 Voting: After dispensing with all motions for modifications, if any, and upon completion of discussion on the main motion, the Moderator shall then ask for the vote on the main motion. If the motion fails to receive the majority required in Section 7.5, the Moderator shall ask for a new motion.

7.3.8.5 Subsequent Motion: If the initial motion is unsuccessful, a motion for one of the other allowable final actions shall be made (see Section 7.3.8.1) and dispensed with until a successful final action is achieved. If a successful final action is not achieved, Section 7.5.1 shall apply.

7.3.9 **Proponent testimony:** The Proponent of a public comment is permitted to waive an initial statement. The Proponent of the public comment shall be permitted to have the amount of time that would have been allocated during the initial testimony period plus the amount of time that would be allocated for rebuttal. Where a public comment is submitted by multiple proponents, this provision shall permit only one proponent of the joint submittal to waive an initial statement.

7.3.10 **Points of Order:** Any person participating in the public hearing may challenge a procedural ruling of the Moderator. A majority vote of the eligible voters as determined in Section 5.7.4 shall determine the decision.

7.4 **Eligible voters:** ICC Governmental Member Representatives and Honorary Members in attendance at the Final Action Hearing shall have one vote per eligible attendee on all International Codes. Applications, whether new or updated, for governmental member voting representative status must be received by the Code Council ten days prior to the commencement of the first day of the Final Action Hearing in order for any designated representative to be eligible to vote.

7.5 **Majorities for Final Action:** The required voting majority based on the number of votes cast of eligible voters shall be in accordance with the following table:

Public Hearing Action (see note)	**Desired Final Action**		
	AS	**AM**	**D**
AS	Simple Majority	2/3 Majority	Simple Majority
AM	2/3 Majority	Simple Majority to sustain the Public Hearing Action or; 2/3 Majority on additional modifications and 2/3 on overall AM	Simple Majority
D	2/3 Majority	2/3 Majority	Simple Majority

Note: The Public Hearing Action includes the committee action and successful assembly action.

7.5.1 **Failure to Achieve Majority Vote:** In the event that a code change proposal does not receive any of the required majorities for final action in Section 7.5, final action on the code change proposal in question shall be disapproval.

7.6 **Publication:** The Final action on all proposed code changes shall be published as soon as practicable after the determination of final action. The exact wording of any resulting text modifications shall be made available to any interested party.

8.0 Appeals

8.1 **Right to Appeal:** Any person may appeal an action or inaction in accordance with CP-1.

2009/2010 ICC CODE DEVELOPMENT CYCLE
CROSS INDEX OF PROPOSED CODE CHANGES

Some of the proposed code changes include sections that are outside of the scope of the chapters or the code listed in the table of 2009/2010 Staff Secretaries on page ix. This is done in order to facilitate coordination among the International Codes which is one of the fundamental principles of the International Codes.

Listed in this cross index are proposed code changes that include sections of codes or codes other than those listed on page ix. For example, IBC Section 402.16.5 is proposed for revision in Part II of code change F58-09/10, which is to be heard by the IFC Committee. This section of the IBC is typically the responsibility of the IBC General Committee as listed in the table of 2009/2010 Staff Secretaries. It is therefore identified in this cross index. Another example is Section 905.4 of the International Fire Code. The International Fire Code is normally maintained by the IFC Committee, but Section 905.4 will be considered for revision in proposed code change G31-09/10 and will be placed on the IBC General Committee agenda. In some instances, there are other subsections that are revised by an identified code change that is not included in the cross index. For example, numerous sections in Chapter 10 of the International Fire Code would be revised by the proposed changes to Chapter 10 of the IBC. This was done to keep the cross index brief enough for easy reference.

This information is provided to assist users in locating all of the proposed code changes that would affect a certain section or chapter. For example, to find all of the proposed code changes that would affect Chapter 7 of the IBC, review the proposed code changes in the Volume 1 monograph for the IBC Fire Safety Committee (listed with a FS prefix) then review this cross reference for Chapter 7 of the IBC for proposed code changes published in other code change groups. While care has been taken to be accurate, there may be some omissions in this list.

Letter prefix: Each proposed change number has a letter prefix that will identify where the proposal is published. The letter designations for proposed changes and the corresponding publications are as follows:

PREFIX	**PROPOSED CHANGE GROUP (see monograph table of contents for location)**
ADM	Administrative
E	International Building Code - Means of Egress
EB	International Existing Building Code
EC	International Energy Conservation Code
F	International Fire Code
FG	International Fuel Gas Code
FS	International Building Code - Fire Safety
G	International Building Code - General
M	International Mechanical Code
PC	ICC Performance Code
P	International Plumbing Code
PSD	International Private Sewage Disposal Code
PM	International Property Maintenance Code
RB	International Residential Code - Building
RE	International Residential Code - Energy
RM	International Residential Code - Mechanical
RP	International Residential Code - Plumbing
S	International Building Code - Structural
WUIC	International Wildland-Urban Interface Code
Z	International Zoning Code

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708.1	E5 – Part I
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R703.11.2	FS156 Part II
R703.11.2.1	FS156 Part II
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R903.4	S2-09/10, Part III (heard by IRC Plumbing)
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R905.2.7.2	S15-09/10, Part II
R905.2.8.5 (New)	S16-09/10, Part II
R905.3.3.3	S15-09/10, Part II
R905.4.3.2 (New)	S15-09/10, Part II
R905.4.5.1 (New)	S17-09/10, Part II
R905.5.3.2 (New)	S15-09/10, Part II
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P2905.19.2 (New)	P70 Part II
P2908.1	P108 Part II
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P3007.3.3.1 (New)	P115 Part II
P3007.3.3.2 (New)	P115 Part II
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INT. WILDLAND-URBAN INTERFACE CODE	
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102.4	ADM4
115 (New)	ADM16 Part I
Chapter 15	ADM39
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Chapter 1	ADM1 Part XI
101.2	ADM3
112 (New)	ADM16 Part I
Chapter 14	ADM39

2009/2010 ICC CODE DEVELOPMENT HEARING SCHEDULE

October 24 – November 11, 2009

Hilton Baltimore

Unless noted by "Start no earlier than X am/pm," each Code Committee will begin immediately upon completion of the hearings for the prior Committee. Thus the actual start times for the various Code Committees are tentative. The hearing volume is higher than previous cycles. The schedule anticipates that the hearings will finish by the times noted as "Finish" for each track and each week.

CODE DEVELOPMENT HEARINGS: OCTOBER 24 - 31

	Saturday October 24	Sunday October 25	Monday October 26	Tuesday October 27	Wednesday October 28	Thursday October 29	Friday October 30	Saturday October 31
TRACK 1	Start 8 am IWUIC IFC End 8 pm	Start 10 am IFC End 8 pm	Start 8 am IFC IRC-Energy (Start no earlier than 1 pm) End 8 pm	Start 8 am IRC – Energy End 8 pm	Start 8 am IRC-Building (Start no earlier than 8 am) End 8 pm	Start 8 am IRC- Building End 8 pm	Start 8 am IRC – Building Admin (Start no earlier than 3 pm) End 8 pm	Start 8 am Admin Finish 3 pm
TRACK 2	Start 8 am IBC-Structural End 8 pm	Start 10 am IBC-Structural End 8 pm	Start 8 am IBC-Structural End 8 pm	Start 8 am IBC-Structural End 8 pm	Start 8 am IECC (Start no earlier than 8 am) End 8 pm	Start 8 am IECC End 8 pm	Start 8 am IECC End 8 pm	Start 8 am IECC Finish 8 pm

ANNUAL CONFERENCE: NOVEMBER 1 - 4

CODE DEVELOPMENT HEARINGS: NOVEMBER 4 - 11

	Wednesday November 4	Thursday November 5	Friday November 6	Saturday November 7	Sunday November 8	Monday November 9	Tuesday November 10	Wednesday November 11
TRACK 1	Start 8 am IPM/ZC IEBC IBC-Fire Safety End 5 pm	Start 8 am IBC-Fire Safety End 8 pm	Start 8 am IBC – Fire Safety IBC – General (Start no earlier than 3 pm) End 8 pm	Start 8 am IBC - General End 8 pm	Start 10 am IBC – General IBC – Egress (Start no earlier than 3 pm) End 8 pm	Start 8 am IBC - Egress End 8 pm	Start 8 am IBC - Egress End 8 pm	Start 8 am IBC - Egress Finish 12 pm
TRACK 2	Start 8 am IPC/IPSDC End 5 pm	Start 8 am IPC/IPSDC End 9 pm	Start 8 am IMC (Start no earlier than 8 am) End 9 pm	Start 8 am IMC IRC-Plumbing/ Mechanical (Start no earlier than 1 pm) End 9 pm	Start 10 am IRC – Plumbing/ Mechanical End 9 pm	Start 8 am IRC – Plumbing/ Mechanical IFGC (Start no earlier than 8 am) Finish 9 pm	NO HEARINGS TRACK 2 COMPLETED	

Notes:

1. Hearing times may be modified at the discretion of the Chairman. Breaks will be announced.
2. Proposed code changes submitted to the International Wildland-Urban Interface Code (IWUIC) to be heard by the IFC Committee.
3. Proposed code changes submitted to the International Zoning (Z) and Property Maintenance (PM) Codes to be heard by the IPM/Z Committee.
4. "Admin" is a new code committee who will hear changes that affect coordination of Chapter 1 of all the I-Codes, except the IRC, and referenced standards updates.

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL CODES

CODE **PAGE**

Administrative Provisions (All Codes) ADM1

International Building Code
- **Fire Safety IBC-FS1**
- **General IBC-G1**
- **Means of Egress IBC-E1**
- **Structural IBC-S1**

International Energy Conservation Code EC1

International Existing Building Code EB1

International Fuel Gas Code FG1

International Fire Code F1

International Mechanical Code M1

International Plumbing Code P1

International Private Sewage Disposal Code PSD1

International Property Maintenance Code PM1

International Residential Code
- **Building/Energy IRC-RB1**
- **Plumbing IRC-RP1**
- **Mechanical IRC-RM1**

International Wildland-Urban Interface Code
(To be heard by the IFC Committee) WUIC1

International Zoning Code
(To be heard by the IPM/IZC Committee) Z1

Registration
Delegate

2009 Annual Conference and
Code Development Hearings

Hearings: October 24–31 and November 4–11
Hilton Baltimore

Conference: November 1–4
Baltimore Convention Center

FIRST NAME AND M.I. _____ LAST NAME/SURNAME _____

JOB TITLE _____

JURISDICTION/ORGANIZATION _____

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☐ Code Development Hearings only (Registration is required to verify voting status)	FREE Registration		FREE Registration	
☐ One-Day Education ☐ Monday, November 2 ☐ Tuesday, November 3	$125	$160	$160	$190
☐ Golf Tournament (per person)** Handicap _____	$75	$75	$125	$125
☐ Golf Club Rental** ☐ Men's ☐ Women's ☐ Left ☐ Right	$25	$25	$25	$25

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ID Number _____

☐ Department of State, Office of Fire Prevention
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FDID #/City Code _____
County Code _____
ID Number _____

NORTH CAROLINA
☐ Code Officials Qualification Board
Requires Driver's License # _____
ID Number _____

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ID Number _____

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ID Number _____

SOUTH CAROLINA
☐ Department of Labor, Licensing and Regulation Board of Building Codes Council
ID Number _____

TENNESSEE
☐ Commerce and Insurance, Fire Prevention Division (aka State Fire Marshal's Office)
ID Number _____

TEXAS
☐ Department of Licensing and Regulation, Electrical Safety and Licensing Advisory Board
ID Number _____

UTAH
☐ Division of Occupational and Professional Licensing, Contractor Licensing
ID Number _____

WISCONSIN
☐ Safety and Buildings Division
ID Number _____

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2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE — GENERAL

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TENTATIVE ORDER OF DISCUSSION

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

GENERAL

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

G3-09/10
G4-09/10
G5-09/10, Part I
G6-09/10
G7-09/10
G9-09/10
G10-09/10
G11-09/10
G12-09/10
G13-09/10
G14-09/10
G15-09/10
    G113-09/10
G16-09/10
G17-09/10
G19-09/10
    G65-09/10
G20-09/10
G21-09/10
G22-09/10
G23-09/10
    G66-09/10
G24-09/10
G25-09/10
G26-09/10
    G30-09/10
G27-09/10
G28-09/10, Part I
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G31-09/10
G32-09/10
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G54-09/10
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G61-09/10
G62-09/10
G63-09/10
G64-09/10, Part I
G64-09/10, Part II
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G69-09/10
    G1-09/10
G76-09/10
G77-09/10
G78-09/10
G79-09/10
G80-09/10
G82-09/10
G83-09/10
G84-09/10
    G34-09/10
G85-09/10
G86-09/10
G87-09/10
G88-09/10
G89-09/10
G90-09/10
    G81-09/10
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G143-09/10
    G75-09/10
G144-09/10
G145-09/10, Part I
G146-09/10, Part I
G147-09/10, Part I
G148-09/10
G149-09/10
G150-09/10
    S26-09/10
    S27-09/10
    S28-09/10
G151-09/10
G152-09/10
G153-09/10, Part I
G153-09/10, Part II
G153-09/10, Part III
G154-09/10
G155-09/10
G156-09/10
    G8-09/10
G178-09/10
G179-09/10
G180-09/10
G182-09/10
    RB176-09/10, Part II
    RB177-09/10, Part II
G183-09/10
G184-09/10
G185-09/10, Part I
G185-09/10, Part II
G186-09/10
G187-09/10
G188-09/10
G189-09/10
G198-09/10, Part I
G198-09/10, Part II
G199-09/10
G201-09/10
G202-09/10
G203-09/10
G204-09/10, Part I
G205-09/10
G206-09/10

G1–09/10
202, 419.1

Proponent: Maureen Traxler representing Washington Association of Building Officials Technical Code Development Committee

1. Add new definition as follows:

SECTION 202
DEFINITIONS

LIVE/WORK UNIT. A *dwelling unit* or *sleeping unit* in which a significant portion of the space includes a nonresidential use that is operated by the tenant. See Section 419.

2. Revise as follows:

419.1 General. A live/work unit ~~is a dwelling unit or sleeping unit in which a significant portion of the space includes a nonresidential use that is operated by the tenant and~~ shall comply with Sections 419.1 through 419.8.

> **Exception:** Dwelling or sleeping units that include an office that is less than 10 percent of the area of the dwelling unit ~~shall not be classified as a live/work unit~~ are permitted to be classified as dwelling units with accessory occupancies in accordance with Section 508.2.

Reason: The term live/work unit is found in several sections of the IBC, including Sections 310, 419, 508 and 1103, so the definition should be located in Chapter 2. This proposed definition of live/work unit is currently contained within 419, but not identified as a definition.

Section 419 is revised to relocate the definition of "live/work unit" to Chapter 2. The exception to Section 419.1 is revised to more clearly coordinate with the accessory occupancy provisions of Section 508.2.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: TRAXLER-G1-202

G2–09/10
202, Appendix I; IRC R202, Appendix H

Proponent: Daniel J. Walker, P.E., Thomas Associates, Inc., representing the National Sunroom Association

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC GENERAL

1. Add new text as follows:

SECTION 202
DEFINITIONS

PATIO COVER. A one story structure with open or glazed walls which is used for recreational and outdoor living purposes associated with a dwelling unit.

2. Revise text as follows:

APPENDIX I
PATIO COVERS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION I101
GENERAL

I101.1 General. Patio covers shall be permitted to be detached from or attached to *dwelling units*. Patio covers shall be used only for recreational, outdoor living purposes and not as carports, garages, storage rooms or habitable rooms. ~~Openings shall be permitted to be enclosed with insect screening, approved translucent or transparent plastic not more that 0.125 inch (3.2 mm) in thickness, glass conforming to the provisions of Chapter 24 or any combination of the foregoing.~~

SECTION I102
HEIGHT ~~DEFINITIONS~~

I102.1 ~~PATIO COVERS.~~ Height. Patio covers are limited to one story structures not exceeding 12 feet (3657 mm) in height. ~~Enclosure walls shall be permitted to be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 6 feet 8 inches (2032 mm) of each wall, measured from the~~ floor.

SECTION I103
EXTERIOR WALLS AND OPENINGS

I103.1 Enclosure walls. Enclosure walls shall be permitted to be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 6 feet 8 inches (2032 mm) of each wall, measured from the floor. Openings shall be permitted to be enclosed with insect screening, approved translucent or transparent plastic not more that 0.125 inch (3.2 mm) in thickness, glass conforming to the provisions of Chapter 24 or any combination of the foregoing.

~~I103.1~~ I1032. Light, ventilation and emergency egress. Exterior openings of the dwelling unit required for light and ventilation shall be permitted to open into a patio structure. However, the patio structure shall be unenclosed if such openings are serving as emergency egress or rescue openings from sleeping rooms. Where such exterior openings serve as an exit from the dwelling unit, the patio structure, unless unenclosed, shall be provided with exits conforming to the provision of Chapter 10.

SECTION I104
STRUCTURAL PROVISIONS

I104.1 Design loads. Patio covers shall be designed and constructed to sustain, within the stress limits of this code, all dead loads plus a minimum vertical live load of 10 pounds per square foot (0.48 kN/m^2) except that snow loads shall be used where such snow loads exceed this minimum. Such patio covers shall be designed to resist the minimum wind and seismic loads set forth in this code.

I104.2 Footings. In areas with a frost depth of zero, a patio cover shall be permitted to be supported on a concrete slab on grade without footings, provided the slab conforms to the provisions of Chapter 19 of this code, is not less than $3^1/_2$ inches (89 mm) thick and further provided that the columns do not support loads in excess of 750 pounds (3.36 kN) per column.

PART II – IRC BUILDING/ENERGY

1. Add new definition as follows:

SECTION R202
DEFINITIONS

PATIO COVER. A one story structure with open or glazed walls which is used for recreational and outdoor living purposes associated with a dwelling unit.

2. Revise text as follows:

APPENDIX H
PATIO COVERS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION AH101
GENERAL

AH101.1 Scope. Patio covers shall conform to the requirements of ~~this appendix chapter~~ Sections AH101 through AH106.

AH101.2 Permitted uses. Patio covers shall be permitted to be detached from or attached to *dwelling units*. Patio covers shall be used only for recreational, outdoor living purposes and not as carports, garages, storage rooms or habitable rooms.

SECTION AH102
~~DEFINITION~~ HEIGHT

~~**Patio covers.**~~ **AH102.1 Height.** Patio covers are limited to one-story structures not exceeding 12 feet (3657 mm) in height. ~~Enclosure walls shall be permitted to be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 6 feet 8 inches (2032 mm) of each wall, measured from the floor. Openings shall be permitted to be enclosed with (1) insect screening, (2) *approved* translucent or transparent plastic not more than 0.125 inch (3.2 mm) in thickness, (3) glass conforming to the provisions of Section R308, or (4) any combination of the foregoing.~~

~~SECTION AH103~~
~~PERMITTED USES~~

~~**AH103.1 General.** Patio covers shall be permitted to be detached from or attached to *dwelling units*. Patio covers shall be used only for recreational, outdoor living purposes and not as carports, garages, storage rooms or habitable rooms.~~

~~SECTION AH104~~
~~DESIGN LOADS~~

~~**AH104.1 General.** Patio covers shall be designed and constructed to sustain, within the stress limits of this code, all dead loads plus a minimum vertical live load of 10 pounds per square foot (0.48 kN/m^2) except that snow loads shall be used where such snow loads exceed this minimum. Such covers shall be designed to resist the minimum wind loads set forth in Table R301.2(1).~~

SECTION AH104
EXTERIOR WALLS AND OPENINGS

AH 104.1 Enclosure walls. Enclosure walls shall be permitted to be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 6 feet 8 inches (2032 mm) of each wall, measured from the floor. Openings shall be permitted to be enclosed with the following:

1. Insect screening,
2. Approved translucent or transparent plastic not more than 0.125 inch (3.2 mm) in thickness,
3. Glass conforming to the provisions of Section R308, or
4. Any combination of the foregoing.

~~SECTION AH105~~
~~LIGHT AND VENTILATION/EMERGENCY EGRESS~~

~~**AH105.1 General.**~~ **AH104.2 Light, ventilation and emergency egress.** Exterior openings required for light and ventilation shall be permitted to open into a patio structure conforming to Section AH101, provided that the patio structure shall be unenclosed if such openings are serving as emergency egress or rescue openings from sleeping rooms. Where such exterior openings serve as an exit from the *dwelling unit*, the patio structure, unless unenclosed, shall be provided with exits conforming to the provisions of Section R310 of this code.

SECTION AH105
STRUCTURAL PROVISIONS

~~**AH104.1 General.**~~ **AH 105.1 Design loads.** Patio covers shall be designed and constructed to sustain, within the stress limits of this code, all dead loads plus a minimum vertical live load of 10 pounds per square foot (0.48 kN/m^2) except that snow loads shall be used where such snow loads exceed this minimum. Such covers shall be designed to resist the minimum wind loads set forth in Table R301.2(1).

~~**SECTION AH106**~~
~~**FOOTINGS**~~

~~**AH106.1 General.**~~ **AH 105.2 Footings.** In areas with a frostline depth of zero as specified in Table R301.2(1), a patio cover shall be permitted to be supported on a slab on *grade* without footings, provided the slab conforms to the provisions of Section R506 of this code, is not less than 3.5 inches (89 mm) thick and the columns do not support live and dead loads in excess of 750 pounds (3.34 kN) per column.

(Renumber subsequent sections)

Reason: This language has long been included in Appendix I of the code. Although the term is defined in the Patio Cover Appendix, this appendix is not a mandatorily adopted part of the code.

Because the term patio cover is used in the main body of the code, the definition needs to be placed in Chapter 2. However because the existing definition contains many regulatory provisions, a new definition needs to be created, leaving the regulatory provisions in Appendix I of IBC and Appendix H of IRC. This provides an opportunity to restructure the provisions of the appendix to put related items together. The section by section changes are as follows:

- 202 – Definition. This is simply the essence that this is a one story structure of open construction that is associated with a dwelling unit which is limited in use.
- I101.1 General – The general provision is reduced to the general limitations on the location of the structure and its use. The details on bug screens are moved to I103
- I102.1 Height. This was the definition, but the all that is left from the definition is the height limitation. The wall and opening limits are moved to I103.
- I103 Exterior Walls and Openings. 103.1 is the new location of the opening limits formerly in the definition and the screening limits moved out of the General Section. 103.2 is the existing 103 section, but with the minor clarification that the exterior openings are those of the dwelling unit, not the patio cover.
- I104. Structural provisions are unchanged.

Cost Impact: The code change proposal will not increase the cost of construction.

PART I – IBC STRUCTURAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC BUILDING/ENERGY

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: WALKER-G1-202-PATIO COVER.doc

G3–09/10
202

Proponent: Paul K. Heilstedt, PE, FAIA, Chair, representing ICC Code Technology Committee (CTC)

Revise as follows:

SECTION 202
DEFINITIONS

SECONDARY MEMBERS. The following structural members shall be considered secondary members and not part of the primary structural frame:

1. Structural members not having direct connections to the columns;
2. Members of the floor construction and roof construction not having direct connections to the columns; and
3. Bracing members other than those that are part of the primary structural frame.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April/2005, the CTC has held seventeen meetings - all open to the public.

This proposed change is a result of the CTC's investigation of the area of study entitled "Review of NIST WTC Recommendations". The scope of the activity is noted as:

> Review the recommendations issued by NIST in its report entitled "Final Report on the Collapse of the World Trade Center Towers", issued September 2005, for applicability to the building environment as regulated by the I-Codes. To evaluate the necessity of developing code changes in response to the NIST report.

The text for "primary structural frame" and "secondary members" was originally developed for placement in Section 704 on Fire-resistance Ratings of Structural Members (Section 714 in the 2006 IBC). At the most recent final action hearings, however, this text was relocated to Section 202 essentially without revision. In the 2009 IBC, bracing members are defined as members of the primary structural frame where they are essential to the stability of the primary structural frame under gravity loading regardless of whether they are designed to resist gravity loads. All other bracing members are defined as secondary members.

This proposal corrects the oversight that roof construction should be treated the same a floor construction within the context of secondary members.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEILSTEDT-G7-202.doc

G4–09/10
202

Proponent: John England, MCO, England Enterprises Inc., representing the Cities of Beaufort and Hardeeville, SC

Revise definition as follows:

SECTION 202
DEFINITIONS

TOWNHOUSE. ~~A single-family *dwelling unit* constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides~~. Single family Group R-3 dwelling unit with zero lot lines which are connected to other dwelling units where three or more exist. The units extend from the foundation to the roof and are open on two or more sides. When three or more townhouses are on the same property they are considered Group R-2 Apartments

Reason: To clarify the confusion of which code(s) applies Town houses build under the IRC are considered separate properties and are really houses with zero lot lines. They will have 2 hr fire walls build between them. They will be sprinkled with NFPA 13D requirements. Accessibility will not become an issue.

Townhouses which are on the same property and are rented are considered Group R-2 (Apartments) and need to be regulated by the IBC when it comes to fire partitions, NFPA 13R sprinklers and accessibility.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: Changing the definition of townhouse may affect the scoping of the *International Building Code* and *International Residential Code.*

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ENGLAND-G8-202-TOWNHOUSE.doc

G5–09/10
202; IRC R202

Proponent: Theresa Weston, PhD., DuPont Building Innovations

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC GENERAL

Revise definition as follows:

SECTION 202
DEFINITIONS

VAPOR-PERMEABLE MEMBRANE. A material or covering having a permeance rating of ~~5~~ 10 perms (~~52.9~~ 5.7 x 10^{-10} kg/Pa●s●m^2) or greater, when tested in accordance with the desiccant method using Procedure A of ASTM E 96. A vapor-permeable material permits the passage of moisture vapor.

PART II – IRC BUILDING/ENERGY

Revise definition as follows:

SECTION R202
DEFINITIONS

VAPOR PERMEABLE MEMBRANE. A material or covering having a permeance rating of ~~5~~ 10 perms (~~2.9~~ 5.7 x 10^{-10} kg/Pa●s●m^2) or greater, when tested in accordance with the desiccant method using Procedure A of ASTME 96. A vapor permeable material permits the passage of moisture vapor.

Reason: (IBC) This change is to correct an apparent contradiction between definitions within the code. Currently, a *Class III Vapor Retarder* is defined as having a permeance between 1 and 10 perms, while a *Vapor-Permeable Membrane* is defined having vapor permeance greater than 5 perms. The permeance region of 5 to 10 perms is therefore both vapor permeable and vapor retarding. I propose resolving this contradiction by raising the vapor permeable minimum permeance to 10 perms. Additionally, currently the metric conversion number is incorrect and a correct metric conversion is provided in this change.

(IRC) This change is to correct an apparent contradiction between definitions within the code. Currently, a *Class III Vapor Retarder* is defined as having a permeance between 1 and 10 perms, while a *Vapor-Permeable Membrane* is defined having vapor permeance greater than 5 perms. The permeance region of 5 to 10 perms is therefore both vapor permeable and vapor retarding. I propose resolving this contradiction by raising the vapor permeable minimum permeance to 10 perms.

Cost Impact: The code change proposal will not increase the cost of construction.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC BUILDING/ENERGY

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: WESTON-G1-202.doc

G6–09/10
202, 304.1 (IFC 202)

Proponent: Ali M. Fattah, City of San Diego, San Diego Area Chapter ICC Code Committee

1. Add new definition as follows:

DEFINITIONS
SECTION 202

FIRE STATION. A building or a portion of a building used by fire and rescue personnel to store equipment and apparatus, for on site living quarters and for administrative and training spaces exclusively dedicated for use by fire station personnel.

2. Revise as follows:

304.1 (IFC 202) Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

Airport traffic control towers
Ambulatory health care facilities
Animal hospitals, kennels and pounds
Banks
Barber and beauty shops
Car wash
Civic administration
Clinic—outpatient
Dry cleaning and laundries: pick-up and delivery stations and self-service
Educational occupancies for students above the 12th grade

Electronic data processing
Fire Stations
Laboratories: testing and research
Motor vehicle showrooms
Post offices
Print shops
Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
Radio and television stations
Telephone exchanges
Training and skill development not within a school or academic program

Reason: This proposed change is to update the 2009 IBC due to recently adopted and published changes to Section 508 in the prior code change cycle. The code change also adds clarity since most designers and building officials we contacted consider the fire station to be a use that falls into one occupancy category. Just like a dwelling can have a garage and a storage area a fire station has an apparatus room, office and training space as well as living quarters for personnel to be comfortably accommodated while on standby awaiting deployment to a call. Currently Fire Stations are not classified and as a result the code forces an un-separated mixed occupancy building design that includes Group R-3 congregate residence, Group S-2 parking, Group B business (office/training) and therefore the 2009 IBC requires the following additional fire protection due to the R-3 occupancy classification: a one-hour occupancy separation between the living quarters and the rest of the fire station as well as a fire suppression system throughout the building. NFPA 13-D is the sprinkler design and installation standard for residential occupancies such as R-3 but would not be appropriate for a fire station which would be most likely protected with a NFPA 13-R or full NFPA 13 system.

Many fire stations have been protected voluntarily with a fire sprinkler system, and in some cases are located in jurisdictions where all buildings require sprinkler protection and therefore so are fire stations. The one hour occupancy separation required in Section 508.2.4 Exception 3, does not allow R-3 occupancies to be non-separated uses. The occupancy separation will be onerous since in many fire stations living quarters can occupy one half of the floor area and can be immediately adjacent to or above the apparatus room and office spaces.

The primary use for a fire station is not for living but for storage of apparatus and to stage fire and rescue personnel prior to deployment. Fire fighters are able bodied and on duty when at the fire station. The 1997 UBC in Section 304.1 item 12 classifies a fire station as a Group B occupancy, as did the 2000 IBC when first published. The 2000 IBC was changed in code Change G20-01 submitted by William Koffel without substantiation, the argument was that a fire station is mixed occupancy and that non-separated use option is available. The 2009 CBC has now changed to require separations for R-3 occupancies despite the non-separated use option. Additionally there were concerns that fire stations in some communities can contain community rooms. The 2009 IBC includes requirements for live-work, however it was not the intent of the proponents of live-work-units to include fire stations which can be considered a place of work where employees live. The only alternative without approval of this code change is to consider the fire station a mixed use occupancy building. By adding the fire station definition, the code change makes clear that when located as a part of a building or as a standalone unit only the fire station operation shall be classified as a Group B occupancy.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FATTAH-G1-304.1.doc

G7–09/10
202

Proponent: Phillip A. Brown, American Fire Sprinkler Association

Add new definition as follows:

SECTION 202
DEFINITIONS

LIMITED-COMBUSTIBLE MATERIAL. A building construction material that in the form it is used has a potential heat release value not exceeding 3,500 Btu per pound.

Reason: A definition needs to be added to define Limited-Combustible Material. The IBC and IFC do not provide a definition of limited combustible construction. But both the IBC and IFC send you to Section 903.3 for the requirements of providing fire sprinklers protection. And as explained in Section 903.3.1 of the 2006 IBC Code and Commentary automatic sprinkler systems are to be installed to comply with the code and NFPA 13, 13R or 13D. NFPA 13:8.15.1.2.1 and 8.15.1.2.10 sets the criteria that will allow for the omission of sprinkler protection, as such explained in the IBC Commentary, the IBC will also allow this. If the IBC or IFC did not want to allow this it would have addressed it as it does in Section 903.3.1.2.1 which requires the sprinklering of balconies and decks where the building is of Type V construction.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: The term 'limited-combustible material' is not presently used in the IBC. A proposal by Ohler for Section 3302 does include the use of this term.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BROWN-G1-202 (NEW).doc

G8–09/10
202, 3103.1

Proponent: Patrick Vandergriff, Vandergriff Code Consulting Services

1. Add new definition as follows:

SECTION 202
DEFINITIONS

MODULAR BUILDING. Prefabricated structures that are manufactured off site and constructed in accordance with the adopted code at the time of construction. Modular buildings are delivered to the customer in one or more complete modular sections for either temporary or permanent installation.

2. Revise as follows:

3103.1 General. The provisions of this section shall apply to structures erected for a period of less than ~~180 days~~ 24 months for modular buildings and similar structures. Tents and other membrane structures erected for a period of less than 180 days shall comply with the *International Fire Code*. Those erected for a longer period of time shall comply with applicable sections of this code.

Reason: Sec. 3103.1. This change provides for time period for temporary structures that is more in keeping with the issue of buildings used as temporary offices and temporary use buildings during construction projects and for other purposes where the old 180 days is simply not going to cover it. It keeps the building official from having to repeatedly review and re-issue permission over and over on such uses which have become common within the industry. It also provides a vehicle for separating modular or other code constructed structures from the Tent and membrane structures.

Definition: There is currently no definition within the code for a modular structure. This language provides a definition and establishes a basis for current proposed language and future development of requirements relative to modular construction building.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: This is one of several changes by this proponent which would add modular buildings into existing text, or adds specific text addressing modular buildings.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: VANDERGRIFF-G3-202.doc

G9–09/10
202

Proponent: Tony Crimi, A.C., Consulting Solutions Inc., representing North American Insulation Manufacturers Association

Add new definition as follows:

SECTION 202
DEFINITIONS

NONCOMBUSTIBLE MATERIAL. A material that will not ignite or burn when subjected to specified fire or heat conditions. Materials that meet the acceptance criteria of ASTM E 136 are considered noncombustible materials.

Reason: There is a need for a definition of "noncombustible material" in the IBC. Several of the I-Codes have varying definitions of the term "non-combustible material", each based upon the way in which the concept of "non-combustible" is used within that Code. Throughout the ICC code system, the concept of "noncombustible material" is based on the idea that the material should not ignite or burn when subjected to fire or heat The IBC, which uses the term extensively, does not contain a specific definition.

The concept of "noncombustible materials" and "noncombustibility" in terms of types of construction is widely used throughout the International Codes. While the IRC, IMC, and IWUIC all contain definitions of the term, they are all different from each other.

In contrast, the IBC, IFC, IEBC and IFGC do not contain a separate definition, even though they use the terminology "non-combustible materials". There is a need for a consistent definition of "noncombustible material" in all ICC codes that use the term.

In common usage, the term "noncombustible" is used to denote materials which do not ignite or are not capable of sustaining combustion. The common Dictionary definitions for "noncombustible" are typically as follows:

Noncombustible, adj – not capable of igniting and burning (Webster's Third New International Dictionary of the English Language, Unabridged, 2007)

In contrast to the common usage, the traditional use of the terminology and concept of "noncombustible materials" in the Codes has been based on acceptable performance when tested in accordance with ASTM E136, Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C. Materials passing the test are permitted limited flaming and other indications of combustion. However, these have traditional been acceptable. Understandably, ASTM E136 does not replicate the full spectrum of actual building fire exposure conditions. However, this test method does provide an assessment indicating those materials which do not act to aid combustion or add appreciable heat to an ambient fire.

While each of the model I-Codes which reference the term "noncombustible" do have unique additional attributes, we are in agreement with the original proponent, that these are best addressed outside of the definition. For example, section 703.4 of the IBC does provide additional requirements and acceptance criteria which are specific to its own intent and contained in Sections 602.2, 602.3, and 602.4. However, this section only describes "Noncombustibility Tests", rather than providing a definition.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CRIMI-G2-202.doc

G10–09/10
303.1 (IFC [B] 202)

Proponent: Ron Hoover, City of Marion, Alburnett Fire, representing self

Revise as follows:

303.1 (IFC [B] 202) Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation.

Exceptions:

1. A building or tenant space used for assembly purposes with an *occupant load* of less than 50 persons shall be classified as a Group B occupancy.
2. A room or space used for assembly purposes with an *occupant load* of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
3. A room or space used for assembly purposes that is less than 750 square feet (70m^2) in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
4. ~~Assembly areas~~ A room or space used for assembly purposes that ~~are~~ is ~~accessory to~~ associated with a Group E ~~occupancies~~ occupancy ~~are not considered separate~~ shall be classified as a Group E ~~occupancies~~ occupancy ~~except when applying the assembly occupancy requirements of Chapter 11~~.
5. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 are not considered separate occupancies.

(Portions of text not shown remain unchanged)

Reason: In previous Code cycles, the wording of this exception was extracted from the general requirement of Section 303 and moved to Section 508, then moved back to 303.1 as an exception. In doing so, the text was changed slightly and the logic of English language was lost, resulting in an exception that is not consistent in format with other exceptions to 303.1 and is not logical in literal meaning. The proposed change will recapture the original intent of this exception in concise language that is consistent with the remainder of this section. Change of wording from 'accessory to' to 'associated with' will clarify that these areas are not separate accessory occupancies subject to the provisions of Section 508.2 and individually classified, but are part of the primary occupancy to which they are associated, and classified accordingly. This exception is an exception only to the occupancy classification and not an exception to the requirements found elsewhere in the Code. By referencing only Chapter 11 in this exception, the code user is left to think that they don't have to comply with other assembly provisions of Chapter 10 or other Code sections. It is not necessary to state here that these areas must comply with the Code.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: The phrase "accessory to Group E occupancies" also occurs in Sections 1010.2, 1014.3, 1028.1, 1028.2, 1028.3 and 1028.9. If this proposal is approved, staff will editorially revise the other sections.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOOVER-G1-303.1

G11–09/10
303.1 (IFC [B] 202)

Proponent: Ron Hoover, City of Marion, Alburnett Fire, representing self

Revise as follows:

303.1 (IFC [B] 202) Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for the purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation.

Exceptions:

1. A building or tenant space used for assembly purposes with an *occupant load* of less than 50 persons shall be classified as a Group B occupancy.
2. A room or space used for assembly purposes with an *occupant load* of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
3. A room or space used for assembly purposes that is less than 750 square feet (70m2) in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
4. Assembly areas that are accessory to Group E occupancies are not considered separate occupancies except when applying the assembly occupancy requirements of Chapter 11.
5. ~~Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 are not considered separate occupancies.~~

Assembly occupancies shall include the following:

A-3 Assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A including, but not limited to:

Amusement arcades
Art galleries
Bowling alleys
Community halls
Courtrooms
Dance halls (not including food or drink consumption)
Exhibition halls
Funeral parlors
Gymnasiums (without spectator seating)
Indoor swimming pools (without spectator seating)
Indoor tennis courts (without spectator seating)
Lecture halls
Libraries
Museums
Places of religious worship
Pool and billiard parlors
<u>Religious education rooms</u>
Waiting areas in transportation terminals

(Portions of text not shown remain unchanged)

Reason: In previous Code cycles, the wording of this exception was extracted from the general requirement of Section 303 and moved to Section 508, then moved back to 303.1 as an exception for the 2009 Edition. In doing so, the text was changed slightly and the logic of English language was lost, resulting in an exception that is not consistent in format with other exceptions to 303.1 and is not logical in literal meaning. The threshold of occupant load less than 100 in the current Code language would put in doubt the proper classification of similar uses with an occupant load greater than 100 and is not needed. The Current Code language is more clarification that the uses described are indeed assembly rather than an exception to assembly classification, it is appropriate to delete the exception and insert “religious educational rooms” in the list of A-3 uses. Religious auditoriums would be included in the current list as “Lecture halls”.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOOVER-G2-303.1

G12–09/10
303.1 (IFC [B] 202)

Proponent: Ron Hoover, City of Marion, Alburnett Fire, representing self

Revise as follows:

303.1 (IFC [B] 202) Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for the purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation.

Exceptions:

1. A building or tenant space used for assembly purposes with an *occupant load* of less than 50 persons shall be classified as a Group B occupancy.
2. A room or space used for assembly purposes with an *occupant load* of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
3. A room or space used for assembly purposes that is less than 750 square feet (70m2) in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
4. Assembly areas that are accessory to Group E occupancies are not considered separate occupancies except when applying the assembly occupancy requirements of Chapter 11.
5. ~~Accessory~~ A room or space used for religious education ~~educational rooms and~~ or as a religious auditorium ~~auditoriums with occupant loads of less than 100 are not considered separate occupancies~~ and associated with a Group A-3 occupancy place of religious worship shall be classified as a Group A-3 occupancy.

(Portions of text not shown remain unchanged)

Reason: In previous Code cycles, the wording of this exception was extracted from the general requirement of Section 303 and moved to Section 508, then moved back to 303.1 as an exception for the 2009 Edition. In doing so, the text was changed slightly and the logic of English language was lost, resulting in an exception that is not consistent in format with other exceptions to 303.1 and is not logical in literal meaning. The proposed change will recapture the original intent of this exception in concise language that is consistent with the remainder of this section. The threshold of occupant load less than 100 was removed in the proposed language because an occupant load of greater than 100 would also be classified as an assembly Group A-3. The current Code language would put in doubt the proper classification of similar uses with an occupant load greater than 100. Change of wording from 'accessory to' to 'associated with' will clarify that these areas are not separate accessory occupancies subject to the provisions of Section 508.2 and individually classified, but are part of the primary occupancy to which they are associated, and classified accordingly.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOOVER-G3-303.1.doc

G14–09/10
303.1 (IFC [B] 202)

Proponent: Stephen Thomas, Colorado Code Consulting, LLC representing the Colorado Chapter ICC

Revise as follows:

303.1 (IFC [B] 202) Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation.

A-2 Assembly uses intended for food and/or drink consumption including, but not limited to:

Banquet halls
Casinos
Night clubs
Restaurants
Taverns and bars

(Portions not shown are unchanged.)

Reason: Casinos are being constructed across the country. These occupancies are sometimes very large. The current code does not specify the occupancy classifications for casinos. Therefore, different classifications are given by building departments and there is inconsistency between jurisdictions. Some jurisdictions classify casinos as Group A-2 and other classify them as Group A-3. This proposal designates casinos as A-2 occupancies. This is the occupancy that is used by the Southern Nevada area including the Las Vegas and Clark County. The A-2 occupancy classification is also appropriate because the casinos have similar hazard characteristics of the other uses in this category. There are distracting lights, sounds, decorations and in some cases alcohol being served. The occupants can become disoriented and confused in an emergency condition and have difficulty finding the exits. Therefore, it seems reasonable to place casinos in the Group A-2 Occupancy Classification.

Cost Impact: The code change will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THOMAS-G4-303.1

G15–09/10

202, 304.1 (IFC [B] 202), 304.1.1 304.2, 422, 710.5, [F] 903.2.2, [F] 903.3.2, [F] 907.2.2, [F] 907.2.2.1 (IFC 903.2.2, 903.3.2, 907.2.2, 907.2.2.1)

Proponent: Paul K. Heilstedt, PE, Chair, representing ICC Code Technology Committee (CTC)

1. Revise as follows:

304.1 (IFC [B] 202) Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

Ambulatory ~~health~~ care facilities
Clinic – outpatient

(Portions of list not shown remain unchanged)

~~304.1.1~~ 304.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

(Relocate definition for Ambulatory Health Care Facilities from Section 202, and revise)

AMBULATORY ~~HEALTH~~ CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation by the services provided.

CLINIC-OUTPATIENT. Buildings or portions thereof used to provide medical care on less than a 24-hour basis to individuals who are not rendered incapable of self-preservation by the services provided.

SECTION 422
AMBULATORY ~~HEALTH~~ CARE FACIILITIES

422.1 General. Occupancies classified as ~~Group B~~ ambulatory ~~health~~ care facilities shall comply with the provisions of Sections 422.1 through ~~422.6~~ 422.7 and other applicable provisions of this code.

422.2 Separation. Ambulatory care facilities where the potential for four or more care recipients are to be incapable of self preservation at any time, whether rendered incapable by staff or staff accepted responsibility for a care recipient already incapable, shall be separated from adjacent spaces, corridors or tenants with a fire partition installed in accordance with Section 708.

~~422.2~~ 422.3 Smoke ~~barriers~~ compartments. ~~Smoke barriers shall be provided to subdivide every~~ Where the aggregate area of one or more ambulatory ~~health~~ care facilities ~~greater than~~ exceeds 10,000 square feet on one story, the story shall be provided with a smoke barrier to subdivide the story into not less than ~~into a minimum of~~ two smoke compartments ~~per story~~. The area of any one such smoke compartment shall not exceed 22,500 square feet (2092 m^2). The travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be installed in accordance with Section 710 with the exception that smoke barriers shall be continuous from outside wall to an outside wall, a floor to a floor, or from a smoke barrier to a smoke barrier or a combination thereof.

~~422.3~~ 422.4 **Refuge area.** At least 30 net square feet (2.8 m^2) per nonambulatory ~~patient~~ care recipient shall be provided within the aggregate area of corridors, ~~patient~~ care recipient rooms, treatment rooms, lounge or dining areas and other low-hazard areas ~~on each side of each smoke barrier~~ within each smoke compartment. Each occupant of an ambulatory care facility shall be provided with access to a refuge area~~s~~ without passing through or utilizing adjacent tenant spaces.

~~422.4~~ 422.5 **Independent egress.** A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated.

~~422.5~~ 422.6 **Automatic sprinkler systems.** Automatic sprinklers systems shall be provided for ambulatory care facilities in accordance with Section 903.2.2.

~~422.6~~ 422.7 **Fire alarm systems**. A fire alarm system shall be provided for ambulatory care facilities in accordance with Section 907.2.2.1.

710.5 Openings. Openings in a *smoke barrier* shall be protected in accordance with Section 715.

Exceptions:

1. In Group I-2 and ambulatory care facilities, where doors are installed across *corridors*, a pair of opposite-swinging doors without a center mullion shall be installed having vision panels with fire-protection-rated glazing materials in fire-protection-rated frames, the area of which shall not exceed that tested. The doors shall be close fitting within operational tolerances, and shall not have undercuts in excess of 3/4-inch, louvers or grilles. The doors shall have head and jamb stops, astragals or rabbets at meeting edges and shall be automatic closing by smoke detection in accordance with Section 715.4.8.3. Where permitted by the door manufacturer's listing, positive-latching devices are not required.
2. In Group I-2 and ambulatory care facilities, horizontal sliding doors installed in accordance with Section 1008.1.4.3 and protected in accordance with Section 715.

[F] 903.2.2 (IFC 903.2.2) ~~Group B~~ ambulatory ~~health~~ care facilities. An automatic sprinkler system shall be installed throughout all fire areas containing an ~~Group B~~ ambulatory ~~health~~ care facility ~~occupancy~~, when either of the following conditions exist at any given time:

1. Four or more care recipients are incapable of self preservation, whether rendered incapable by staff or staff have accepted responsibility for care recipients already incapable.
2. One or more care recipients that are incapable of self preservation are located at other than the level of exit discharge.

In buildings where care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed on the entire floor where care is provided as well as all floors below, and all floors between the level of care and the closest level of exit discharge.

[F] 903.3.2 (IFC 903.3.2) Quick-response and residential sprinklers. Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

1. Throughout all spaces within a smoke compartment containing ~~patient~~ sleeping units in Group I-2 in accordance with this code.
2. Throughout all spaces within a smoke compartment containing treatment rooms in ambulatory care facilities.
3. ~~2.~~ Dwelling units, and sleeping units in Group R and I-1 occupancies.
4. ~~3.~~ Light-hazard occupancies as defined in NFPA 13.

[F] 907.2.2 (IFC 973.2.2) Group B. A manual fire alarm system shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B *occupant load* of all floors is 500 or more.
2. The Group B *occupant load* is more than 100 persons above or below the lowest *level of exit discharge*.
3. The ~~Group B~~ *fire area* contains a ~~Group B~~ ambulatory ~~health~~ care facility.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

[F] 907.2.2.1 (IFC 907.2.2.1) ~~Group B~~ ambulatory ~~health~~ care facilities. Fire areas containing ~~Group B~~ ambulatory ~~health~~ care facilities shall be provided with an electronically supervised automatic smoke detection system installed within the ambulatory ~~health~~ care facility and in public use areas outside of tenant spaces, including public *corridors* and elevator lobbies.

Exception: Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, provided the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Reason: Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April/2005, the CTC has held seventeen meetings - all open to the public.

This proposed change is a result of the CTC's investigation of the area of study entitled "Care Facilities". The scope of the activity is noted as: Study issues associated with Day Care/Adult Care, Ambulatory Health Care and Assisted Living facilities with an emphasis on the number of occupants in relation to the supervision, and the determination of the resident's capability of responding to an emergency situation without physical assistance from the facility's supervision.

The Code Technology Committee Study Group on Care Facilities has conducted a comprehensive review of current building and fire codes, federal regulations and prior code change proposals dealing with the provision of "care". "Care" as it relates to the scope of this work relates to an occupant of a building who is compromised (mentally or physically) and receives some type of support (care). These facilities encompass a full spectrum of acuity and span a wide range of occupancy types including Groups B, E, I and R. On the lower end of the spectrum, occupants may be aged and receive occasional day living assistance such as cooking and cleaning. On the opposite end of the spectrum, occupants may be completely bedridden and dependant on medical gases and emergency power to maintain life.

The proposed changes provide clear direction for design and construction by using terms and concepts consistently and clearly identifying thresholds related to the condition of an occupant. Federal regulations and state licensing provisions were considered, but primarily in terms of avoiding conflicting requirements. It is not the intent of these changes to address licensing or operational issues. We do believe that the proposed changes will provide consistent and correlated language between these multiple sources of regulations that will help design and code professionals address the needs of care recipients in the many different types of facilities.

A major goal is to provide clarity and consistency of terminology. New definitions are added to specifically describe each type of care or facility and identify the distinct differences in these. Some terms are consolidated to be more descriptive of a group of occupants, yet generic enough to be used interchangeably. For example: a "Patient" is now identified as a "care recipient" and "nurse" is now "care provider". People receive care of varying types but they are not always referred to as "patients". They receive care from a wide range of persons with different technical abilities, not just a "nurse" or "staff". Other definitions address existing terms not defined within current code. The study group believes that these changes bring a practical response to the recent developments within the healthcare delivery system.

Ambulatory Care Facilities, Section 422 and related sections

This public comment represents the collaborative efforts to address the more specifically concerns regarding these uses over the past several cycles.

Change modifying the existing language includes:

- Remove an unneeded reference to "Health" as the definition clearly expresses that these types of facilities are related to some form or care. Also relocate the definition to Section 304.2 to align with the formatting of other Groups that provide definitions for special occupancies within that specifically related section.
- Remove an unneeded reference to "Group B" whenever the term Ambulatory Health Care Facility is used.
- Added Section 422.2 to require fire partition separation from adjacent spaces in facilities with greater than 4 care recipients. The intent is to subdivide the floor to allow for a reasonable level of safety for care recipients who made need assistance to evacuate, or to allow for the option of protecting in place for a limited period of time.
- Modified the continuity requirements of a smoke barrier to deal with intersection or connection to adjacent tenants, and maintain the integrity and safety.
- Several of these changes are mindful of existing buildings to allow for renovations without going into other tenant spaces.
- Added 22,500 square foot limit to a smoke compartment, similar to Group I-2s.
- For multiple tenant spaces, language is added to the area of refuge requirements to clarify that the area of refuge must be accessed without going through adjacent tenant spaces.

Correlative changes to Sections 710, 903 and 907 are bringing consistency of terminology and provision cross references.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEILSTEDT-G2-304.1.doc

G16–09/10

305.1, 305.2 (New), 305.2 (IFC [B] 202); 308.5, 308.5.1, 308.5.2 (IFC [B] 202), 310.2; [F] 903.2.6 (IFC 903.2.6); 1015.1, Table 1015.1, 1015.7 (New), 1021.2, Table 1021.2 (IFC [B] 1015.1, Table 1015.1, 1015.7 (New), 1021.2, Table 1021.2); 1103.2.12; [P] Table 2902.1, [P] 2903.1, [P] 2903.2 (IPC Table 403.1, 403.1, 403.2)

Proponent: Paul K. Heilstedt, PE, Chair, representing ICC Code Technology Committee (CTC)

1. Revise as follows:

SECTION 305
EDUCATIONAL GROUP E

305.1 (IFC [B] 202) Educational Group E. Educational Group E occupancy includes, among others, the use of a building or structure, or a portion thereof, by six or more persons at any one time for educational purposes through the 12th grade.

> **Exception:** Religious educational rooms and religious auditoriums, which are accessory to *places of religious worship* in accordance with Section 303.1 and have *occupant loads* of less than 100, shall be classified as a Group A-3 occupancies.

305.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

(Relocate definition for Personal Care Service from Section 310.2, and revise)

PERSONAL CARE SERVICE. The care of ~~residents~~ occupant's who do not require ~~chronic or convalescent~~ medical ~~or nursing~~ care. Personal care involves responsibility for the safety of the ~~residents~~ occupants while inside the building.

~~305.2~~ 305.3 (IFC [B] 202) Group E, Day care facilities. The use of a building or structure, or portion thereof, for educational, supervision or *personal care services* or more than five children older than 2 1/2 years of age, shall be classified as a Group E occupancy.

A facility such as the above within a dwelling unit and having five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2.

SECTION 308
INSTITUTIONAL GROUP I

308.5 (IFC [B] 202) Group I-4, day care facilities. This group shall include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage or adoption, and in a place other than the home of the person cared for. ~~A facility such as the above five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2. Places of worship during religious functions are not included.~~ This group shall include, but not be limited to, the following:

Adult day care
Child day care

~~**308.5.1 (IFC [B] 202) Adult care facility.** A facility that provides accommodations for less than 24 hours for more than five unrelated adults and provides supervision and custodial care shall be classified as Group I-4.~~
~~**Exception:** A facility where occupants are capable of responding to an emergency situation without physical assistance from the staff shall be classified as Group R-3.~~

~~**308.5.2 (IFC [B] 202) Child care facility.** A facility that provides supervision and custodial care on less than a 24-hour basis for more than five children 2 1/2 years of age or less shall be classified as Group I-4.~~

Exceptions:

1. A child day care facility that provides custodial care for more than five but no more than 100 children 2-1/2 years or less of age, when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.
2. Rooms and spaces within places of worship providing such care during religious functions shall be classified as part of the primary occupancy.

A facility such as the above within a dwelling unit and having five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2.

[F] 903.2.6 (IFC 903.2.6) Group I. An *automatic sprinkler system* shall be provided throughout buildings with a Group I *fire area*.

Exceptions:

1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 or 903.3.1.3 shall be allowed in Group I-1 facilities.
2. An *automatic sprinkler system* is not required where day care facilities are at the *level of exit discharge* and where every room where care is provided has at least one exterior *exit* door.
3. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with 903.3.1.1 shall be installed on the entire floor where care is provided as well as all floors below, and all floors between the level of care and the closest level of exit discharge.

1015.1 (IFC [B] 1015.1) Exits or exit access doorways from spaces. Two *exits* or *exit access doorways* from any space shall be provided where one of the following conditions exists:

Exception: Group I-2 occupancies shall comply with Section 1014.2.2 through 1014.2.7.

1. The *occupant load* of the space exceeds one of the values in Table 1015.1.

   Exception: In Group R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual dwelling units with a maximum *occupant load* of 20 where the dwelling unit is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.

2. The *common path of egress travel* exceeds one of the limitations of Section 1014.3.
3. Where required by Section 1015.3, 1015.4, 1015.5, 1015.6 ~~or~~ 1015.6.1, or 1015.7.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative *occupant loads* from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

TABLE 1015.1 (IFC [B] TABLE 1015.1)
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

OCCUPANCY	MAXIMUM OCCUPANT LOAD
A, B, E[a], F, M, U	49
H-1, H-2, H-3	3
H-4, H-5, I-1, I-3, I-4, R	10
S	29

~~a. Day care maximum occupant load is 10.~~

2. Add new text as follows:

1015.7 (IFC [B] 1015.7) Day care means of egress. Day care facilities, rooms or spaces where care is provided for more than 10 children that are 2-1/2 years of age or less, shall have access to not less than two exits or exit access doorways.

3. Revise as follows:

1021.2 (IFC [B] 1021.2) Single exits. Only one *exit* shall be required from Group R-3 occupancy buildings or from stories of other buildings as indicated in Table 1021.2. Occupancies shall be permitted to have a single *exit* in buildings otherwise required to have more than one *exit* if the areas served by the single *exit* do not exceed the limitations of Table 1021.2. Mixed occupancies shall be permitted to be served by single *exits* provided each individual occupancy complies with the applicable requirements of Table 1021.2 for that occupancy. Where applicable, cumulative *occupant loads* from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. Basements with a single *exit* shall not be located more than one *story* below *grade plane*.

TABLE 1021.2 (IFC [B] TABLE 1021.2)
STORIES WITH ONE EXIT

STORY	OCCUPANCY	MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE
First story or basement	A, B[d], E[e], F[d], M, U, S[d]	49 occupants and 75 feet travel distance
	H-2, H-3	3 occupants and 25 feet travel distance
	H-4, H-5, I, R	10 occupants and 75 feet travel distance
	S[a]	29 occupants and 100 feet travel distance
Second story	B[b], F, M, S[a]	29 occupants and 75 feet travel distance
	R-2	4 dwelling units and 50 feet travel distance
Third story	R-2[c]	4 dwelling units and 50 feet travel distance

For SI: 1 foot = 304.8 mm.

a. For the required number of exits for parking structures, see Section 1021.1.2.
b. For the required number of exits for air traffic control towers, see Section 412.3.
c. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1029.
d. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum travel distance of 100 feet.
~~e. Day care occupancies shall have a maximum occupant load of 10.~~

1103.2.12 Day care facilities. Where a day care facility ~~(Groups A-3, E, I-4 and R-3)~~ is part of a dwelling unit, only the portion of the structure utilized for the day care facility is required to be accessible.

[P] TABLE 2902.1 (IPC TABLE 403.1)
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES[a]
(See Sections 2902.2 and 2902.3)

No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2 OF THE INTERNATIONAL PLUMBING CODE)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS [e, f] (SEE SECTION 410.1 OF THE INTERNATIONAL PLUMBING CODE)	OTHER
				MALE	FEMALE	MALE	FEMALE			
5	Institutional	I-4	Adult day care and child day care	1 per 15		1 per 15		1	1 per 100	1 service sink

(Portions of table not shown remain unchanged)

[P] 2903.1 (IPC 403.1) Water closet compartment. Each water closet utilized by the public or employees shall occupy a separate compartment with walls or partitions and a door enclosing the fixtures to ensure privacy.

Exceptions:

1. Water closet compartments shall not be required in a single-occupant toilet room with a lockable door.
2. Toilet rooms located in ~~day care and~~ child day care facilities and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.
3. This provision is not applicable to toilet areas located within Group I-3 housing areas.

[P] 2903.2 (IPC 403.2) Urinal partitions. Each urinal utilized by the public or employees shall occupy a separate area with walls or partitions to provide privacy. The walls or partitions shall begin at a height not more than 12 inches (305 mm) from and extend not less than 60 inches (1524 mm) above the finished floor surface. The walls or partitions shall extend from the wall surface at each side of the urinal a minimum of 18 inches (457 mm) or to a point not less than 6 inches (152 mm) beyond the outermost front lip of the urinal measured from the finished back wall surface, whichever is greater.

Exceptions:

1. Urinal partitions shall not be required in a single occupant or unisex toilet room with a lockable door.
2. Toilet rooms located in ~~day care and~~ child day care facilities and containing two or more urinals shall be permitted to have one urinal without partitions.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April/2005, the CTC has held seventeen meetings - all open to the public.

This proposed change is a result of the CTC's investigation of the area of study entitled "Care Facilities". The scope of the activity is noted as: Study issues associated with Day Care/Adult Care, Ambulatory Health Care and Assisted Living facilities with an emphasis on the number of occupants in relation to the supervision, and the determination of the resident's capability of responding to an emergency situation without physical assistance from the facility's supervision.

The Code Technology Committee Study Group on Care Facilities has conducted a comprehensive review of current building and fire codes, federal regulations and prior code change proposals dealing with the provision of "care". "Care" as it relates to the scope of this work relates to an occupant of a building who is compromised (mentally or physically) and receives some type of support (care). These facilities encompass a full spectrum of acuity and span a wide range of occupancy types including Groups B, E, I and R. On the lower end of the spectrum, occupants may be aged and receive occasional day living assistance such as cooking and cleaning. On the opposite end of the spectrum, occupants may be completely bedridden and dependant on medical gases and emergency power to maintain life.

The proposed changes provide clear direction for design and construction by using terms and concepts consistently and clearly identifying thresholds related to the condition of an occupant. Federal regulations and state licensing provisions were considered, but primarily in terms of avoiding conflicting requirements. It is not the intent of these changes to address licensing or operational issues. We do believe that the proposed changes will provide consistent and correlated language between these multiple sources of regulations that will help design and code professionals address the needs of care recipients in the many different types of facilities.

A major goal is to provide clarity and consistency of terminology. New definitions are added to specifically describe each type of care or facility and identify the distinct differences in these. Some terms are consolidated to be more descriptive of a group of occupants, yet generic enough to be used interchangeably. For example: a "Patient" is now identified as a "care recipient" and "nurse" is now "care provider". People receive care of varying types but they are not always referred to as "patients". They receive care from a wide range of persons with different technical abilities, not just a "nurse" or "staff". Other definitions address existing terms not defined within current code. The study group believes that these changes bring a practical response to the recent developments within the healthcare delivery system.

Day Care Facilities, Section 305.3 and related sections

This public comment represents the collaborative efforts of the CTC Study Group on Care to clarify the scope and intent of the code as it applies to the subject of when care is provided and what are the appropriate elements of the building code to address the risks associated with Day Care. Changes to modify the existing language include:

- Changing the provisions for religious educational facilities to become an exception.
- Adding a definition section for the educational group and moving the definition of personal care services from 310.2 to 305.2, clarifying the day care as a day care facility, and adding the correlation to classify that a Group E, day care facility with five or fewer is allowed in an R-3 or may be constructed per the IRC.
- Adding clarifications to the I-4 Group to include both adult and child day care services, and adding an exception for such services within a place of worship, and clarifying that day care facility with five or fewer is allowed in an R-3 or may be constructed per the IRC.
- Correlating the requirements for fire suppression in Chapter 9 with the provisions for day care.
- Clarifying the requirement for means of egress from day care where more than 10 children receive care.
- Removing the occupancy group designations from the scoping criteria in Chapter 11 as being unnecessary, C
- Clarifying that the plumbing table is applicable for day care, and that the exclusion for partitions is meant to apply to child day care, not all day care.

Issues concerning the multitude of occupancies, conflicting criteria and/or confusion between the occupancies identified as "Day Care vs. Child or Adult Day Care" were the initial impetus for the study of care. The overlap and inconsistencies for all types of care were eventually included once the true scope of the issues was recognized.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEILSTEDT-G3-305.1.doc

G17–09/10

305.3 (New) [IFC [B] 202 (New)]

Proponent: James R. Mason, III, Home School Legal Defense Association (HSLDA)

Add new text as follows:

305.3 (IFC [B] 202) Home education. The use of a portion of a dwelling unit for a home school or private school for children who normally reside in the dwelling unit shall be classified the same occupancy as the dwelling unit.

Reason: Home School Legal Defense Association is a national organization that exists to protect the right of parents to teach their children at home. With over 85,000 member families across the United States, we are the largest homeschooling association in the world. Recently we have run into some difficulty with officials who believe that residences where children both reside and are home educated should be classified as school buildings. For families with six or more children, this would mean that their home must comply with all school fire and safety codes—an extremely burdensome requirement, and not at all in line with the intent of building and fire codes. This is no small problem; the Department of Education recently estimated that over 1.5 million children are taught by their parents in their own home.[1]

Most recently, this issue arose in Ohio, a state where families have the option of teaching their own children by filing either as a homeschool or as a religious private school. The Ohio Department of Education has taken the position that families with more than six children who file as a private school must also ensure that their homes comply with the building and safety requirements of Educational Group E; even though these are "private schools" only on paper and actually consist of parents educating only their own children in their own residences. On April 20, 2009, a Hearing Officer agreed with the Department, stating that Educational Group E "applies, *inter alia*, if a structure or part thereof is used for educational purposes by six or more persons. This provision does not provide an exception for structures which also serve other purposes (such as homes), nor does it distinguish between 'persons' who are family members and those who are not." (Report and Recommendation of Hearing Officer, April 17, 2009, Attachment A) On June 12, 2009, the Ohio Department of Education adopted the Hearing Officer's decision.

To prevent this problem, we are proposing a clarification, not an alteration. Teaching one's own children in one's own home does not transform the residence into a school building, as is clear from a detailed reading of the building and residential codes. However, such a conclusion is never explicitly stated within the ICC codes, leading some education officials to erroneously conclude that parents who teach six or more of their own children in their residence automatically convert the residence to a school building, subject to all school building requirements.

Other organizations associated with safety codes have already recognized the need for a clarification. The NFPA codes read: "In cases where instruction is incidental to some other occupancy, the section of this *Code* governing such other occupancy shall apply." (101 Life Safety Code, 6.1.33; 14.1.4.3; & 15.1.4.3, Attachment B). The North Dakota Supreme Court has applied the NFPA clarification to homeschoolers. (*Birst v. Stansted,* 493 N. W. 2d 690 (1992), Attachment C) In California, where the same issue came up tangentially in 2008, the Fire Marshall had already clarified the ICC codes with the following caveat to Educational Group E: "Exception: A residence used as a home school for the children who normally reside at the residence. Such residences shall remain classified as Group R-2, or Group R-3." (California Fire Code, Attachment D)

Since the way homeschooling is defined varies by state, with some states labeling them "homeschools" while other states require parents to file as home-based private schools, the clarification for homeschooling needs to be broad enough to account for variation between state statutes. This proposed wording accounts for the variety between states. Such a clarification in the IBC would pre-empt the confusion brought on by erroneous readings of the codes and avoid the costly litigation that can result from such readings.

[1] National Center for Education Statistics Issue Brief, "1.5 Million Homeschooled Students in the United States in 2007," December 23, 2008, NCES 2009030, http://nces.ed.gov/pubs2009/2009030.pdf.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MASON-G1-305.3 (NEW)

G18–09/10
306.2 (IFC [B] 202)

Proponent: Stephen Thomas, Colorado Code Consulting, LLC representing the Colorado Chapter

Revise as follows:

306.2 (IFC [B] 202) Factory Industrial F-1 Moderate-hazard Occupancy. Factory industrial uses which are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

Aircraft (manufacturing, not to include repair)
Appliances
Athletic equipment
Automobiles and other motor vehicles
Bakeries
Beverages: over 16-percent alcohol content
Bicycles
Boats
Brooms or brushes
Business machines
Cameras and photo equipment
Canvas or similar fabric
Carpets and rugs (includes cleaning)
Clothing
<u>Commercial kitchens containing commercial cooking appliances</u>
Construction and agricultural machinery

Disinfectants
Dry cleaning and dyeing
Electric generation plants
Electronics
Engines (including rebuilding)
Food processing
Furniture
Hemp products
Jute products
Laundries
Leather products
Machinery
Metals
Millwork (sash and door)
Motion pictures and television filming (without spectators)
Musical instruments
Optical goods
Paper mills or products
Photographic film
Plastic products
Printing or publishing
Recreational vehicles
Refuse incineration
Shoes
Soaps and detergents
Textiles
Tobacco
Trailers
Upholstering
Wood; distillation
Woodworking (cabinet)

Reason: Commercial kitchens are not currently classified in the IBC. However, Table 508.4 has footnote d which states that a separation between a commercial kitchen and the seating areas that they serve is not required. That would indicate that the kitchen is a separate occupancy. The designation has been included within a Group F-1 Occupancy because it is similar to a Bakery and Food Processing facility. Essentially, meals are being assembled in a kitchen to be served in the dining area. It is the same general process that occurs in a food processing plant. This category would also clarify the occupancy classification for a catering kitchen that is not attached to a dining area. Many people try to classify a kitchen as a Group B Occupancy because this occupancy has been a catch all occupancy in the past. That classification is reserved for personal service uses and office. A kitchen does not fit into this type of occupancy. The additional language regarding the commercial cooking appliance is to clarify that a break room that has a microwave and sink is not a commercial kitchen. If a commercial cooking appliance is not installed, the use would not be classified as a Group F Occupancy, but a part of the main occupancy. The International Mechanical Code defines the term Commercial Cooking Appliance.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THOMAS-G1-306.2

G19–09/10
306.2, 311.2, [F] 903.2.9.1, (IFC [B] 202, 903.2.9.1)

Proponent: Lou Malattia, representing Washington Association of Building Officials

Revise as follows:

306.2 (IFC [B] 202) Factory Industrial F-1 Moderate-hazard Occupancy. Factory industrial uses which are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

Aircraft (manufacturing, not to include repair)
Appliances
Athletic equipment

Automobiles and other motor vehicles
Bakeries
Beverages: over 16-percent alcohol content
Bicycles
Boats
Brooms or brushes
Business machines
Cameras and photo equipment
Canvas or similar fabric
Carpets and rugs (includes cleaning)
Clothing
Construction and agricultural machinery
Disinfectants
Dry cleaning and dyeing
Electric generation plants
Electronics
Engines (including rebuilding)
Food processing
Furniture
Hemp products
Jute products
Laundries
Leather products
Machinery
Metals
Millwork (sash and door)
Motion pictures and television filming (without spectators)
Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.6)
Musical instruments
Optical goods
Paper mills or products
Photographic film
Plastic products
Printing or publishing
Recreational vehicles
Refuse incineration
Shoes
Soaps and detergents
Textiles
Tobacco
Trailers
Upholstering
Wood; distillation
Woodworking (cabinet)

311.2 (IFC [B] 202) Moderate-hazard storage, Group S-1. Buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

Aerosols, Levels 2 and 3
Aircraft hangar (storage and repair)
Bags: cloth, burlap and paper
Bamboos and rattan
Baskets
Belting: canvas and leather
Books and paper in rolls or packs
Boots and shoes
Buttons, including cloth covered, pearl or bone
Cardboard and cardboard boxes
Clothing, woolen wearing apparel
Cordage

Dry boat storage (indoor)
Furniture
Furs
Glues, mucilage, pastes and size
Grains
Horns and combs, other than celluloid
Leather
Linoleum
Lumber
~~Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.6)~~
Photo engravings
Resilient flooring
Silks
Soaps
Sugar
Tires, bulk storage of
Tobacco, cigars, cigarettes and snuff
Upholstery and mattresses
Wax candles

[F] ~~903.2.9.1~~ 903.2.4.2 (IFC ~~903.2.9.1~~ 903.2.4.2) Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 10,000 square feet (929 m^2).
2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 12,000 square feet (1115 m^2).
3. Buildings with repair garages servicing vehicles parked in the basement.
4. A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m^2).

Reason: Propose changing the occupancy classification for motor vehicle repair from Group S-1 to F-1.

Group S occupancies are described as "Storage Group S occupancy includes, among others, the use of a building or structure, or a portion thereof, for storage that is not classified as hazardous occupancy"; and Group F-1 occupancies are described as "Factory Industrial Group F occupancy includes, among others, the use of a building or structure, or a portion thereof, for assembling, disassembling, fabrication, finishing, manufacturing, packaging, repair or processing operations that are not classified as a Group H hazardous or Group S storage occupancy.

The requirements for automotive repair garages are consistent with the activities of Group F use; assembling, disassembling, and repairing. Group S occupancy is described as storage use, therefore, automotive repair garages should be placed within the Group F rather than Group S occupancy classification.

Group S-1 Type VB building has an allowable area of 9,000 square feet, whereas the Group F-1 Type 5B has an allowable area of 8,500 square feet. This difference in allowable area will have a negligible effect the size and construction type of these structures, particularly when considering the increases permitted by sprinkling the building throughout.

Table 503 permits Group F-1 of Type IA and IB construction to be unlimited area, but limits Group S-1 Type IB to 48,000 sq.ft. However, Groups S-1 and F-1 may be still unlimited under any type of construction where meeting Section 507.3 and this may even be further mitigated using Section 507.5 to reduce one of the required yards.

Section 414 addresses issues related to quantities of hazardous materials stored within the occupancy other than what is within the vehicle, which is regulated by the IFC. Storage of hazardous material would require control rooms where exceeding Tables 307.1 (1) & (2).

Repair garages are not buildings that store vehicles, but rather, repair facilities.

Codes covering other requirements are under Section 406.6 (IBC), ventilation Section 403.3 (IMC), spray painting Chapter 15 (IFC), hot work Chapter 26 (IFC), repair garages Chapter 22 (IFC), and Section 1004.7.2 (IPC).

The Interior Finish Classification requirement in Table 803.9 for a non-sprinkled corridor requires Class B for Group S occupancy and a Class C for Group F occupancy. The change of classification would benefit to proposed new classification of this occupancy by reduce code requirements and somewhat reduce constructions costs a bit in this area. This also holds true with regard to minimum radiant flux criteria of flooring under Section 804.4.1 where the Group F occupancy, unlike the Group S occupancy, is not required to meet minimum requirement of Class II in exits and exit access components.

Large Group F occupancies would require an alarm system per Section 907.2.4, but with sprinklers this becomes a mote point by the exception.

Table 1004.1.1 provides a specific square foot gross (200) for egress design for fabrication and manufacturing, where the Group S-1 did not. As a Group S-1 many designers many be using the storage criterion listed in Table 1004.1 of 300. Others may even utilize 100 for industrial area. By changing automotive repair garages to the Group F-1 classification we can now have a more specific guide line to determine occupant load which is more realistic to the repair shop use.

Section 1015 and Table 1015.1 may save some costs for additional exits and exit discharges due to higher allowed occupant loads allowed within F compared to Group S occupancies. However, when one compares building size permitted between Groups S-1 and F-1 occupancy using 300 square feet per occupant for Group S-1 and 200 square feet per occupant for F-1 the difference in building square footage permitted is only 12.6% area increase before two exits are required for Group F-1 occupancies. The travel distance is the same for both occupancies.

To summarize: automotive repair should be classified as a Group F-1 occupancy in order to be more consistent with the described use. The impact this change has on other code requirements is minimal and the change helps clarify some of the code requirements.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MALATTIA-G2-306.2

G20–09/10

308.1, 308.2, 308.3, 308.3.1, 310.1, 310.2, (IFC [B] 202); [F] 903.2.6, [F] 903.2.8, [F] 903.3.1.3, [F] 903.3.2, [F] 907.2.6, [F] 907.2.6.2, (IFC 903.2.6, 903.2.8, 903.3.1.3, 903.3.2, 907.2.6, 907.2.6.2); Table 1021.2 (IFC [B] Table 1021.2); 1107.5.3; [P] Table 2902.1 (IPC Table 403.1)

Proponent: Paul K. Heilstedt, PE, Chair, representing ICC Code Technology Committee (CTC)

Revise as follows:

308.1 (IFC [B] 202) Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which ~~people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted~~ care or supervision is provided to individuals who, are or are not capable of self preservation without physical assistance or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.

308.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

(Relocate revised definitions from Section 308.3.1, and revise)

24 HOUR CARE. The actual time that a person is an occupant within a facility for the purpose of receiving care. It shall not include a facility that is open for 24 hours and is capable of providing care to someone visiting the facility during any segment of the 24 hours.

CUSTODIAL CARE. Assistance with day-to-day living tasks; such as assistance with cooking, taking medication, bathing, using toilet facilities and other tasks of daily living, usually on a long-term basis. Custodial care include occupants who evacuate at a slower rate and/or who have mental and psychiatric complications.

DETOXIFICATION FACILITIES. Facilities that ~~serve patients who are~~ provided treatment for substance abuse ~~on a 24-hour basis and~~ serving care recipients who are incapable of self-preservation or who are harmful to themselves or others.

~~CHILD~~ FOSTER CARE FACILITIES. Facilities that provide care ~~on a 24-hour basis~~ to more than five children, $2^1/_2$ years of age or less,

HOSPITALS AND ~~MENTAL~~ PSYCHIATRIC HOSPITALS. Facilities ~~buildings or portion thereof used on a 24 hour basis~~ that provides care or treatment for the medical, psychiatric, obstetrical, or surgical treatment of inpatients ~~who~~ care recipients that are incapable of self-preservation.

INCAPABLE OF SELF PRESERVATION. Persons because of age; physical limitations; mental limitations; chemical dependency; or medical treatment cannot respond as an individual to an emergency situation.

MEDICAL CARE. Care involving medical or surgical procedures, nursing or for psychiatric purposes.

NURSING HOMES. ~~Nursing homes are long-term care~~ Facilities that provide long-term care ~~on a 24-hour basis~~, including both intermediate care facilities and skilled nursing facilities, ~~serving more than five persons and~~ where any of the persons are incapable of self-preservation.

~~308.2~~ 308.3 (IFC [B] 202) Group I-1. This occupancy shall include buildings, structures or portions thereof ~~housing~~ for more than 16 persons who reside on a 24 hour basis ~~who because of age, mental disability or other reasons, live~~ in a supervised ~~residential~~ environment ~~that provides *personal care services*~~ and receive custodial care. The occupants are capable of ~~responding to an emergency situation without physical assistance from staff~~ self preservation. This group shall include, but not be limited to, the following:

Alcohol and drug centers
Assisted living facilities
Congregate care facilities
Convalescent facilities
Group homes
Halfway houses
Initial stage Alzheimer's facilities
Residential board and custodial care facilities
Social rehabilitation facilities

A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.

~~308.3~~ 308.4 (IFC [B] 202) Group I-2. This occupancy shall include buildings and structures used for medical~~, surgical, psychiatric, nursing or custodial~~ care on a 24 hour basis for more than five persons who are not capable of self-preservation. This group shall include, but not be limited to, the following:

Foster ~~Child~~ care facilities
Detoxification facilities
Hospitals
Nursing homes
~~Mental~~ Psychiatric hospitals

A facility such as the above with five or fewer residents shall be classified as Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2.

~~**308.3.1 Definitions.** The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.~~

(Relocate revised definitions to Section 308.2)

310.1 (IFC [B] 202) Residential Group R. Residential Group R includes, among others, the use of a building, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the International Residential Code in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Boarding houses (transient)
Hotels (transient)
Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (not transient)
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Vacation timeshare properties

Congregate living facilities with 16 or fewer individuals are permitted to comply with the requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, or I, including:

Buildings that do not contain more than two dwelling units.
~~Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.~~
~~Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.~~
Care facilities as that provide accommodations for five or fewer persons
Congregate living facilities with 16 or fewer individuals**.**

~~Adult care and child~~ Care facilities for 5 or fewer individuals receiving care that are within a single-family ~~home~~ dwellings are permitted to comply with the International Residential Code.

R-4. This occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24 hour basis in a supervised residential environment and receive custodial care. The occupants are capable of self preservation. This group shall include, but not be limited to, the following:

Alcohol and drug centers
Assisted living facilities
Congregate care facilities
Convalescent facilities
Group homes
Halfway houses
Initial stage Alzheimer's facilities
Residential board and custodial care facilities
Social rehabilitation facilities

~~Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.~~

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code ~~or shall comply with the *International Residential Code* provided the building is protected by an *automatic sprinkler system* installed in accordance with Section 903.2.8.~~

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

BOARDING HOUSE. A building arranged or used for lodging for compensation, with or without meals, and not occupied as a single-family unit.

CONGREGATE LIVING FACILITIES. A building or part thereof that contains sleeping units where residents share bathroom and/or kitchen facilities.

DORMITORY. A space in a building where group sleeping accommodations are provided in one room, or in a series of closely associated rooms, for persons not members of the same family group, under joint occupancy and single management, as in college dormitories or fraternity houses.

GROUP HOME. A facility for social rehabilitation, substance abuse or mental health problems that contain a group housing arrangement that provides custodial care but does not provide acute care.

~~**RESIDENTIAL CARE/ASSISTED LIVING FACILITIES.** A building or part thereof housing persons on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.~~

TRANSIENT. Occupancy of a *dwelling unit* or *sleeping unit* for not more than 30 days.

[F] 903.2.6 (IFC 903.2.6) Group I. An *automatic sprinkler system* shall be provided throughout buildings with a Group I *fire area*.

Exception: An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 ~~or 903.3.1.3~~ shall be ~~allowed~~ permitted in Group I-1 facilities.

[F] 903.2.8 (IFC 903.2.8) Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R *fire area*.

An *automatic sprinkler system* installed in accordance with 903.3.1.3 shall be permitted in congregate residences with 16 or fewer residents. An automatic sprinkler system installed in accordance with 903.3.1.3 shall be permitted in care facilities with 5 or fewer individuals a single family dwelling.

[F] 903.3.1.3 (IFC 903.3.1.3) NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one and two-family *dwellings*, Group R-3 and R-4 congregate residences and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D.

[F] 903.3.2 (IFC 903.3.2) Quick-response and residential sprinklers. Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

1. Throughout all spaces within a smoke compartment containing ~~patient~~ care recipient sleeping units in Group I-2 in accordance with this code.
2. Dwelling units, and sleeping units in Group R and I-1 occupancies.
3. Light-hazard occupancies as defined in NFPA 13.

[F] 907.2.6 (IFC 907.2.6) Group I. A manual fire alarm system that activates the occupant notification system shall be installed in Group I occupancies. An automatic smoke detection system that activates the occupant notification system shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2 and 907.2.6.3.3.

Exceptions:

1. Manual fire alarm boxes in ~~resident or~~ ~~patient~~ sleeping units of Group I-1 and I-2 occupancies shall not be required at *exits* if located at all ~~nurses'~~ care providers' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.4.2 are not exceeded.
2. Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is *approved* by the fire code official.

[F] 907.2.6.2 (IFC 907.2.6.2) Group I-2. An automatic smoke detection system shall be installed in *corridors* in nursing homes, long term care facilities ~~(both intermediate care and skilled nursing facilities)~~, detoxification facilities and spaces permitted to be open to the *corridors* by Section 407.2. The system shall be activated in accordance with Section 907.5. Hospitals shall be equipped with smoke detection as required in Section 407.

Exceptions:

1. *Corridor* smoke detection is not required in smoke compartments that contain ~~patient~~ sleeping units where such units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the *corridor* side of each ~~patient~~ *sleeping unit* and shall provide an audible and visual alarm at the care provider ~~nursing~~ station attending each unit.
2. *Corridor* smoke detection is not required in smoke compartments that contain ~~patient~~ *sleeping units* where ~~patient~~ *sleeping unit* doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

1021.2 (IFC [B] 1021.2) Single exits. Only one *exit* shall be required from Group R-3 occupancy buildings or from stories of other buildings as indicated in Table 1021.2. Occupancies shall be permitted to have a single *exit* in buildings otherwise required to have more than one *exit* if the areas served by the single *exit* do not exceed the limitations of Table 1021.2. Mixed occupancies shall be permitted to be served by single *exits* provided each individual occupancy complies with the applicable requirements of Table 1021.2 for that occupancy. Where applicable, cumulative *occupant loads* from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. Basements with a single *exit* shall not be located more than one *story* below *grade plane*.

TABLE 1021.2 (IFC [B] TABLE 1021.2)
STORIES WITH ONE EXIT

STORY	OCCUPANCY	MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE
First story or basement	A, B[d], E[e], F[d], M, U, S[d]	49 occupants and 75 feet travel distance
	H-2, H-3	3 occupants and 25 feet travel distance
	H-4, H-5, I, ~~R~~ R-1, R-2, R-4	10 occupants and 75 feet travel distance
	S[a]	29 occupants and 100 feet travel distance
Second story	B[b], F, M, S[a]	29 occupants and 75 feet travel distance
	R-2	4 dwelling units and 50 feet travel distance
Third story	R-2[c]	4 dwelling units and 50 feet travel distance

For SI: 1 foot = 304.8 mm.

a. For the required number of exits for parking structures, see Section 1021.1.2.
b. For the required number of exits for air traffic control towers, see Section 412.3.
c. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1029.
d. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum travel distance of 100 feet.
e. Day care occupancies shall have a maximum occupant load of 10.

1107.5.3 Group I-2 hospitals. Accessible units and Type B units shall be provided in General-purpose hospitals, psychiatric facilities, and detoxification facilities ~~and residential care/assisted living facilities~~ of Group I-2 occupancies in accordance with Sections 1107.5.3.1 and 1107.5.3.2.

[P] TABLE 2902.1 (IPC TABLE 403.1)
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES[a]
(See Sections 2902.2 and 2902.3)

No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2 OF THE INTERNATIONAL PLUMBING CODE)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS [e, f] (SEE SECTION 410.1 OF THE INTERNATIONAL PLUMBING CODE)	OTHER
				MALE	FEMALE	MALE	FEMALE			
7	Residential	R-3	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		R-4	~~Residential care/assisted living facilities~~ Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink

(Portions of table not shown remain unchanged)

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April/2005, the CTC has held seventeen meetings - all open to the public.

This proposed change is a result of the CTC's investigation of the area of study entitled "Care Facilities". The scope of the activity is noted as:

> Study issues associated with Day Care/Adult Care, Ambulatory Health Care and Assisted Living facilities with an emphasis on the number of occupants in relation to the supervision, and the determination of the resident's capability of responding to an emergency situation without physical assistance from the facility's supervision.

The Code Technology Committee Study Group on Care Facilities has conducted a comprehensive review of current building and fire codes, federal regulations and prior code change proposals dealing with the provision of "care". "Care" as it relates to the scope of this work relates to an occupant of a building who is compromised (mentally or physically) and receives some type of support (care). These facilities encompass a full spectrum of acuity and span a wide range of occupancy types including Groups B, E, I and R. On the lower end of the spectrum, occupants may be aged and receive occasional day living assistance such as cooking and cleaning. On the opposite end of the spectrum, occupants may be completely bedridden and dependant on medical gases and emergency power to maintain life.

The proposed changes provide clear direction for design and construction by using terms and concepts consistently and clearly identifying thresholds related to the condition of an occupant. Federal regulations and state licensing provisions were considered, but primarily in terms of avoiding conflicting requirements. It is not the intent of these changes to address licensing or operational issues. We do believe that the proposed changes will provide consistent and correlated language between these multiple sources of regulations that will help design and code professionals address the needs of care recipients in the many different types of facilities.

A major goal is to provide clarity and consistency of terminology. New definitions are added to specifically describe each type of care or facility and identify the distinct differences in these. Some terms are consolidated to be more descriptive of a group of occupants, yet generic enough to be used interchangeably. For example: a "Patient" is now identified as a "care recipient" and "nurse" is now "care provider". People receive care of varying types but they are not always referred to as "patients". They receive care from a wide range of persons with different technical abilities, not just a "nurse" or "staff". Other definitions address existing terms not defined within current code. The study group believes that these changes bring a practical response to the recent developments within the healthcare delivery system.

Group I-1, I-2, R-4; Section 308 and related correlations

Change modifying the existing language includes:

- A modification is proposed to the general charging language of Group I to more clearly express the various types of occupancy conditions found within Group I.
- Consolidate the definitions from Section 308.3.1 and 308.1 to create a definition Section 308.2 for all of Group I, consistent with current format within the code. Some of the definitions have been modified to add clarity; others are new to remove confusion of meaning and intent.
- Modified the general language of specific use occupancies within Group I and R to reflect the new definitions proposed and be more current with industry and licensing descriptions, but not the provisions.
- Modifications or additions have been made to the example listings of uses and correlate the terminology for a consistency of application. The threshold of more than 5 persons was added to the first paragraph of Group I-2 and the last sentence was added after the example listing to allow for families to care for person without becoming an I-2 use. This also correlates how the occupancies with less than 5 persons are handled in the other care facilities.
- The definition of Child Care Facilities has been to Foster Care Facilities and the provision of 24 hours was removed as it is redundant to the general language of an I-2 use. Foster Care for more than 5, children 2 ½ years of age or less is still an I-2 use. Facilities providing care to 6 to 16 children greater than 2 ½ years of age, is an R-4 and facilities for greater than 16 children it will be an I-1. Additionally, this will eliminate the confusion between day care and 24 hour care facilities.
- In Section 903.2.6 it is proposed to delete the option for the NFPA13D sprinkler system for Group I-1 because a NFPA 13D system is not permitted based on the threshold for Group I-1 being greater than 16 occupants. The sprinkler requirements for Group R is generic and currently not clear for facilities such as small congregate residences. As a small assisted living facility, the NFPA 13D sprinkler system is appropriate permitted in Group R-4 (see the revisions to Section 903.2.8) as well as other congregate residences with 16 or fewer occupants. Indicating the used in Section 903.1.3 clarifies that congregate residences with 16 or fewer occupants, while not single family dwellings, are permitted to use NFPA 13D systems. This is consistent with NFPA13D requirements. This was permitted specifically for Group R-4 in the 2000 IBC. This would also be consistent with Fair Housing Act court cases based on non-discrimination for group homes.
- Changes proposed beyond Chapter 3 are correlative in nature to reflect the new definitions or provisions previously allowed under chapter 3 provisions but not correlated for ease of use.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEILSTEDT-G5-308.1.doc

G21–09/10

308.2 (IFC 202), 310.1, 310.2, 420.1, 420.2, 420.4 (New), 420.4.1 (New), 420.4.2 (New), 420.4.3 (New), 420.5 (New), 420.5.1 (New), Table 503, 504.2, 508.2.4, 508.3.3, Table 706.4, 710.5, 1006.1, 1107.6.4.1; IFC 903.2.6, 907.2.6.1, 907.5.2.3.3

Proponent: Daniel Purgiel, LRS Architects Inc.

1. Revise as follows:

308.2 (IFC [B] 202) Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than ~~16~~ five persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants require physical assistance with evacuation in responding to an emergency situation. ~~The occupants are capable of responding to an emergency situation without physical assistance from staff.~~ This group shall include, but not be limited to, the following:

Alcohol and drug centers
Alzheimer's facilities
Assisted living facilities
~~Congregate care facilities~~
Convalescent facilities
Group homes
~~Halfway houses~~
Residential board and care facilities
~~Social rehabilitation facilities~~

A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons, ~~shall be classified as Group R-4.~~ shall meet the requirements for construction as defined for Group R-3, except as otherwise provided in this code or shall comply with the *International Residential Code*, provided the building complies with Section 903.2.6. A facility such as above, where occupants are capable of responding to an emergency situation without physical assistance, shall be classified as Group R-4.

310.1 (IFC [B] 202) Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code* in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies where the occupants are primarily transient in nature, including:

Boarding houses (transient)
Hotels (transient)
Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (not transient)
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Monasteries
Motels (nontransient)
Vacation timeshare properties

Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4 or I including:

Buildings do not contain more than two dwelling units.
Adult facilities that that provide accommodations for five or fewer persons of any age for less than 24 hours.
Child care facilities that that provide accommodations for five or fewer persons of any age for less than 24 hours.
Congregate living facilities with 16 or fewer persons.
Adult and child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.

R-4 ~~Residential occupancies shall include buildings, arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.~~ Residential occupancies located in buildings or portions thereof housing more than five persons, excluding staff, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance. This group shall include, but not be limited to, the following:

Alcohol and drug centers
Assisted living facilities
Congregate care facilities
Convalescent facilities
Group homes
Halfway houses
Residential board and care facilities
Social rehabilitation facilities

Group R-4 occupancies housing 16 or fewer persons, shall meet the requirements for construction as defined for Group R-3 except as otherwise provided for in this code, or shall comply with the *International Residential Code* provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.7.

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

RESIDENTIAL CARE/ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. ~~The occupants are capable of responding to an emergency situation without physical assistance from staff.~~ The occupants are not bedridden, except during temporary sickness. Occupancy classification is based on the ability of occupants to respond to an emergency situation with or without physical assistance. ~~This classification~~ Residential care/ assisted living facilities shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.

(Definitions not shown remain unchanged)

SECTION 420
GROUPS I-I~~, R-1, R-2, R-3~~ and R

420.1 General. Occupancies in Groups I-1~~, R-1, R-2 R-3~~ and R shall comply with the provisions of this section and other applicable provisions of this code.

420.2 Separation walls. Walls separating dwelling units in the same building, walls separating sleeping units in the same building and walls separating dwelling or sleeping units from other occupancies contiguous to them in the same building shall be constructed as fire partitions in accordance with Section 709.

> **Exception:** Walls separating dwelling units and sleeping units within Groups I-1 and R-4 occupancies, housing 16 or fewer persons are not required to be constructed as fire partitions.

420.3 Horizontal separation. Floor assemblies separating dwelling units in the same buildings, floor assemblies separating sleeping units in the same building and floor assemblies separating dwelling or sleeping units from other occupancies contiguous to them in the same building shall be constructed as horizontal assemblies in accordance with Section 712.

2. Add new text as follows:

420.4 Groups I-1 smoke barriers. Group I-1 occupancies housing more than 16 residents shall be provided with smoke barriers in accordance with Section 710. Smoke barriers shall subdivide every story used by residents for sleeping or treatment into at least two smoke compartments. Each smoke compartment shall have a maximum of 16 sleeping rooms, or 10,500 square feet (976 m^2), whichever is less, and the travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 150 feet (60 960 mm).

420.4.1 Refuge area. At least 6 net square feet (0.56 m^2) of refuge area per resident shall be provided within the aggregate area of corridors, treatment rooms, or other low hazard common space rooms on each side of each smoke barrier.

420.4.2 Independent egress. A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated.

420.4.3 Horizontal assemblies. Horizontal assemblies supporting smoke barriers required by this section shall be designated to resist the movement of smoke and shall comply with Section 712.9.

420.5 Group I-1 corridors. Group I-1 occupancies shall have an exit access door from dwelling units or sleeping rooms leading directly to a corridor. Corridors in Group I-1 shall be continuous to the exits and separated from other areas in accordance with Section 1018, except areas conforming to Section 420.5.1

> **Exception:** Sleeping rooms and dwelling units with exit doors opening directly to the exterior at ground level shall not be required to have an exit access door leading directly to a corridor.

420.5.1 Group I-1 multipurpose areas. Multipurpose areas directly adjacent to sleeping rooms that are not part of a dwelling unit shall be permitted to be open to the corridor where the following criteria are met:

1. The area shall be under continuous 24 hour supervision by the facility staff;
2. The area is not used as an exit access for more than 16 sleeping rooms;
3. Travel distance within the smoke compartment, where the sleeping rooms and multipurpose areas are located, shall not exceed 75 feet (30 480 mm);
4. The area shall have direct access to an exit or shall exit into a fire-resistance rated corridor in accordance with Section 1018;
5. The area is arranged so as not to obstruct any access to the required exits;
6. The area is equipped with an automatic fire detection system installed in accordance with Section 907.2;
7. The walls and ceilings of the area outside the sleeping rooms are constructed as required for corridors;
8. The area shall be separated from incidental accessory occupancies in accordance with Section 508.2.5; and
9. Doors from the sleeping rooms opening into the area shall not have a required protection rating and shall not be required to be equipped with self-closing or automatic closing devices, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. Roller latches are not permitted.

3. Revised text as follows:

TABLE 503
ALLOWABLE HEIGHT AND BUILDING AREAS
Height limitations shown as stories and feet above grade plane.
Area limitations as determined by the definition of "Area, building," per floor

		TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
GROUP	HEIGHT (feet) HEIGHT (s)	UL	160	65	55	65	55	65	50	40
I-1[e]	S	UL	~~9~~ 6	~~4~~ 2	~~3~~ 1	~~4~~ 1	~~3~~ 1	~~4~~ 1	~~3~~ 1	~~2~~ NP
	A	UL	55,000	19,000	10,000	16,500	10,000	18,000	10,500	~~4,500~~ NP
R-4	S	UL	~~11~~ 9	4	~~4~~ 3	4	~~4~~ 3	4	3	2
	A	UL	~~UL~~ 55,000	~~24,000~~ 19,000	~~16,000~~ 10,000	~~24,000~~ 16,500	~~16,000~~ 10,000	~~20,500~~ 18,000	~~12,000~~ 10,500	~~7,000~~ 4,500

(Portions of table and footnotes not shown remain unchanged)

504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum *building height* is increased by 20 feet (6096 mm) and the maximum number of *stories* is increased by one. These increases are permitted in addition to the *building area* increase in accordance with Sections 506.2 and 506.3. For Group R buildings equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum *building height* is increased by 20 feet (6096 mm) and the maximum number of *stories* is increased by one, but shall not exceed 60 feet (18 288 mm)or four *stories*, respectively.

Exceptions:

1. Buildings or portions of buildings, classified as a Group I-1 occupancy, specifically designated or licensed by a state to house residents with Alzheimer's disease in Types IIB, III, IV, or V construction.
~~1.~~ 2. Buildings or portions of buildings, classified as a Group I-2 occupancy of Type IIB, II, IV or V construction.
~~2.~~ 3. Buildings or portions of buildings, classified as a Group H-1, H-2, H-3 or H-5 occupancy.
~~3.~~ 4. Fire resistance rating substitution in accordance with Table 601, Note d.

508.2.4 Separation of occupancies. No separation is required between accessory occupancies and the main occupancy.

Exceptions:

1. Group H-2, H-3, H-4 and H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.4.
2. Incidental accessory occupancies required to be separated or protected by Section 508.2.5.

3. Group ~~I-1,~~ R-1, R-2 and R-3 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from accessory occupancies contiguous to them in accordance with the requirements of Section 420.
4. Groups I-1 and R-4 occupancies with more than 16 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from accessory occupancies contiguous to them in accordance with the requirements of Section 420.

508.3.3 Separation. No separation is required between nonseparated occupancies.

Exceptions:

1. Group H-2, H-3, H-4 and H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.4.
2. Group ~~I-1,~~ R-1, R-2 and R-3 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from accessory occupancies contiguous to them in accordance with the requirements of Section 420.
3. Groups I-1 and R-4 occupancies with more than 16 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from accessory occupancies contiguous to them in accordance with the requirements of Section 420.

Table 706.4
FIRE WALL FIRE RESISTANCE RATINGS

A, B, E, H-4, I, R-1, R-2, R-4, U	3[a]
F-1, H-3[b], H-5, M, S-1	3
H-1, H-2	4[b]
F-2, S-2, R-3, ~~R-4~~	2

(Footnotes not shown, remain unchanged)

710.5 Openings. Openings in a smoke barrier shall be protected in accordance with Section 715.

Exceptions:

1. In Groups I-1 and I-2, where such doors are installed across corridors, a pair of opposite-swinging doors without a center mullion shall be installed having vision panels with fire-protection-rated glazing materials in fire-protection-rated frames, the area of which shall not exceed that tested. The doors shall be close fitting within operational tolerances, and shall not have undercuts in excess of ¾- inch, louvers or grilles. The doors shall have head and jamb stops, astragals or rabbets at meeting edges and shall be automatic-closing by smoke detection in accordance with Section 715.4.8.3. Where permitted by the door manufacturer's listing, positive-latching devices are not required.
2. In Groups I-1 and I-2, horizontal sliding doors installed in accordance with Section 1008.1.4.3 and protected in accordance with Section 715.

[F] 903.2.6 (IBC [F] 903.2.6) Group I. An automatic sprinkler system shall be provided throughout buildings with Group I fire area.

Exception: An automatic sprinkler system installed in accordance with Section 903.3.1.2 or 903.3.1.3 shall be allowed in Group I-1 facilities, housing 16 or fewer persons.

[F] 907.2.6.1 (IBC 907.2.6.1) Group I-1. An automatic smoke detection system shall be installed in *corridors,* waiting areas open to *corridors* and *habitable spaces* other than *sleeping units* and kitchens. The system shall be activated in accordance with Section 907.5.

Exceptions:

~~1. Smoke detection in habitable spaces is not required where the facility is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.~~
~~2.~~ 1. Smoke detection is not required for exterior balconies.

[F] 907.5.2.3.3 (IBC 907.5.2.3.3) Groups I-1, ~~and~~ R-1, and R-4. Groups I-1, ~~and~~ R-1, and R-4 dwelling units or sleeping units in accordance with Table 907.5.2.3.3 shall be provided with a visible alarm notification appliance, activated by both the in-room smoke alarm and the building fire alarm system.

Exception: Visible alarm notification appliances are not required in Groups I-1 and R-4 occupancies, housing 16 or fewer persons.

1006.1 Illumination required. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

Exceptions:

1. Occupancies in Group U.
2. Aisle accessways in Group A.
3. Dwelling units and sleeping units in Groups R-1, R-2, ~~and~~ R-3 and R-4.
4. Dwelling units and sleeping units of Group I occupancies.

1107.6.4 Group R-4. Accessible Units and Type B units shall be provided in Group R-4 occupancies shall be provided in accordance with Sections 1107.6.4.1 and 1107.6.4.2.

1107.6.4.1 Accessible units. At least 4 percent but not less than one of the dwelling or sleeping units shall be an Accessible unit.

1107.6.4.2 Type B units. In structures with four or more dwelling or sleeping units or sleeping units intended to be occupied as a residence, every dwelling and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

Reason: IBC PERSONAL CARE OCCUPANCY REVISIONS: SUMMARY OVERVIEW OF THE ISSUE

This proposal revises Group I-1 to allow not capable of self preservation residents in facilities that provide personal care services. This reflects the actual conditions that currently occur across the country as is now indicated in a referenced national study. This proposal keeps all not capable of self preservation occupants in the Group I occupancy. The study also shows that there are capable of self preservation personal care uses. This proposal moves the current capable Groups I-1 and R-4 uses exclusively to the R-4. This makes Group R for overnight residential and personal care uses that are capable of self preservation. The smaller 6-16 resident personal care uses (current R-4), and their five current "exceptions" due to size, are now proposed to be made by "exceptions" in the new proposed I-1 and R-4, instead of by a separate occupancy classification.

This following Summary Overview provides background information required to understand why these revisions are proposed. More detailed background information is provided in attachment G- Additional Detailed Substantiation and the other referenced attachments in *(parenthesis and italics).*

Issue: The IBC Groups I-1 and R-4 are the occupancy designations for personal care. The resident profile requirement in Section 308.2 states that the "occupants are capable of responding to an emergency situation without physical assistance from staff."

The IBC statement above about the types of residents in personal care assisted living, is a central point of reference in the findings of a 130 page national analysis conducted by the State of Hawaii in 2007. The analysis is entitled "Assisted Living Analysis of All State Regulations Relative to Building Codes and Life Safety Codes," hereafter referred to as the study or analysis. Attachments A, B, and D are from the Hawaii analysis. This national review of assisted living resident types and related protection features was conducted to give recommendations to Hawaii on how it should regulate its assisted living. The findings included in the study are also used here to help substantiate the reasons for the proposed changes to the IBC.

The Hawaii Study Is The Only Known In Depth National Review of Assisted Living Relative to These Subjects.

- The analysis indicates that assisted living facilities and Alzheimer's facilities have the largest populations in personal care service occupancies. There are approximately 35,000 assisted living facilities in the United States. They are licensed by state governments under similar assisted living licenses in all 50 states, each with their own unique licensure regulations.
- The study shows that the current resident profile requirements in the IBC I-1 and R-4 occupancies are exclusively applicable in just 4 states, relative to assisted living. *(See Attachment A-All State Summary Table.)*
- The study finds that 51 of the 89 total assisted living categories in all 50 states have residents that require physical assistance with evacuation. The IBC does not currently allow non capable types of residents in its I-1 or R-4 personal care assisted living occupancies, and personal care is not listed in the I-2 occupancy.
- The study recommends that the IBC personal care occupancies should be revised to include personal care service assisted living with its actual resident types, while adding more I-2 protection requirements.
- It recommends that personal care assisted living not incorporate numerous other I-2 requirements and exceptions for reasons stated later in this summary.
- The recommendations in the study also allow for personal care occupancies having capable of self preservation residents as is currently found in the I-1 and R-4 occupancies, closely matching the current R-2 requirements.
- The IBC revisions proposed here follow concepts from the Hawaii recommendations and three other states that have created statewide amendments to the IBC, for the same reasons found in the Hawaii study.

Both Federal and Individual State Licensing Requirements Override Current IBC Personal Care Criteria and Requirements

The study shows that approximately 36 states allow Federal Medicaid waivers to allow Medicaid reimbursement to residents in their state's assisted living facilities, bringing other Federal requirements to personal care assisted living. *(See Attachment A-All State Summary Table).* Most of these states and other individual state licensing regulations then add other life safety protection requirements not currently covered in the IBC personal care I-1 and R-4 occupancies. (*See Attachment G-Additional Detailed Substantiation-Protection Feature Sampling of Recent Projects).* The Federal Centers for Medicare and Medicaid Services (CMS) enforce these requirements in many states, similar to what occurs in nursing facilities. This majority of states across the country, under additional enforcement of life safety, allow residents who need evacuation assistance, now further limit wood frame stories, and require full coverage commercial sprinklers and smoke barriers. *(See Attachment C-IBC Revision Summary Table.)*

The current lack of coordination with a majority of state licensing regulations life safety requirements, Federal CMS regulations, and the lack of classification of actual conditions in assisted living in the IBC, cause inconsistent application of the IBC across the country. Assisted living with residents of the same capabilities, and the same number of residents and stories, may be wood frame, have residential sprinklers with no smoke barriers in one city; and be required to be steel frame, have full coverage commercial sprinklers, and have smoke barriers in a nearby city. *(See Attachment G-Additional Detailed Substantiation.)*

Proposal Includes a Broad Spectrum National Approach

Finally, this proposal takes a broad spectrum national approach to personal care service uses, while not emphasizing preferences of one or a few states**.** It deals with the issue that each state has numerous types of these personal care uses and that each state regulates them differently. This proposal realigns the personal care occupancies to match the actual conditions and variations of occupant capabilities across the country. It will help eliminate the current inconsistent application of the IBC and make the code more consistent with other Federal and state enforced regulations. Once incorporated, the proposed revisions in the IBC will cover the full spectrum of the different types of personal care uses. *(See Attachment B-Elder Care Resident Profile Guide and C-IBC Revision Summary Table.)*

SUMMARY OF CONCEPTS & PROPOSED REVISIONS

A. Proposed Not Capable of Self Preservation Personal Care Requiring Similar Protection Found in Nursing

Most actual personal care assisted living have residents that may not be capable of self evacuation. This revision concept makes the Group I occupancy for those who are not capable of responding to emergencies on their own, and makes the R occupancy for those who are capable of responding on their own. The revision allows the non capable personal care resident type in the I-1. It then revises the I-1 to have similar protection features found in I-2 nursing. This is versus the current I-1 closely matching the current the R-2 resident capability and protection features. The remaining personal care uses that have residents that are capable of evacuation are proposed to be moved to the R-4 occupancy. *(See Attachment C-IBC Revision Summary Table, E-Current IBC Occupancy Requirements Comparison Table, and F- Proposed IBC Occupancy Requirements Comparison Table.)*

These revisions:

- Allow residents that may need assistance with evacuation in the I-1 occupancy. (Matching current CMS and a majority of state assisted living regulations.)
- Keep the current IBC "personal care" definition the same: Personal care is care of residents that do not require chronic nursing care etc.
- Adds the three main applicable protection features from I-2 into the I-1: Further story limitations on wood framing, full sprinklerization (NFPA 13 versus the current NFPA 13R), and smoke barriers providing compartmentalization. (Matching current CMS and a majority of state regulation concepts.)
- Changes the I-1 from housing more than 16 to housing over five persons, and then includes “exceptions” for 6 to 16 occupant facilities, instead of making a separate occupancy classification for them.
- Includes specially designated Alzheimer’s facilities in I-1 while providing exceptions for corridors and story limitations in the proposed Chapters 4 and 5 for Alzheimer’s facilities. (Aligning with current CMS concepts, matching 47 states that allow Alzheimer’s facilities under assisted living licenses, and matching a majority of state licensing regulations.)

B. **Proposed Not Capable of Self Preservation Personal Care Requiring More Stringent Protection than Nursing**

The State of Hawaii review of all 50 states assisted living regulations showed that personal care assisted living is different from I-2 nursing care. *(See Attachment A-All State Summary Table and G-Additional Detailed Substantiation)*

- It showed that all states limit assisted living care to not include nursing care beyond intermittent care which is also consistent with the current IBC personal care definition. All states regulate nursing as another higher level of care not allowed in assisted living.
- All states do not allow bedridden residents in personal care assisted living, except due to short term sickness. Residents who are bedridden beyond temporary sickness, or require beyond intermittent nursing care from temporary sickness, are required to be discharged to a nursing facility in all states assisted living regulations.
- Assisted living residents are required to participate in fire drills and eventually disperse to a point of safety in case of an emergency in the fire code, in state assisted living regulations, and by most CMS enforced regulations. Nursing facilities are "protect in place," meaning residents are instructed to stay in their rooms and wait for rescue as needed.
- Assisted living has generally less required staff to resident ratios than nursing due to assisted living residents generally being more capable of evacuation than nursing residents.

These four criteria differentiate personal care services in assisted living from nursing care, substantiating why it is and should continue to be classified as a different occupancy. These differences then require personal care service occupancies to have some different protection features that the I-2 nursing occupancy does not require. *(See Attachment G-Additional Detailed Substantiation)*

These proposed IBC revisions:

- Make corridors in I-1 and R-4 more stringent than in I-2 nursing. The current requirement for protected rated corridors in I-1 and R-4 is maintained in most cases. This is more stringent than the unprotected corridor openings and spaces open to corridors allowed in I-2 nursing in the IBC Chapter 4. Having protected corridors in personal care service assisted living is appropriate because they are not "protect in place" and they have lower staff to resident ratios.
- Make smoke barriers in I-1 more stringent than in I-2 nursing. The proposal requires the smoke barrier "compartments" to be smaller in size versus what is allowed in nursing. This effectively reduces travel distance and travel time to reach a point of safety, taking into account slower residents than the general public and less staff than found in nursing.

C. Proposed Capable of Self Preservation Personal Care Requiring Similar Protection Found in Residential Occupancies

The proposed IBC revisions moves current personal care service uses with occupants capable of exiting on their own without physical assistance, to Group R-4. This makes Group R for overnight uses for those that are considered generally capable of self preservation except for short term sickness. This proposal accomplishes the following:

- Makes R-4 as fully capable personal care: It moves the current I-1 and R-4 personal care uses that have all residents that can evacuate on their own to the R-4 occupancy. It changes the current R-4 from housing 6 to 16 to housing over five persons. It then includes “exceptions” for 6 to 16 occupant facilities in other sections, instead of making a whole occupancy classification for them. There are only five exceptions for differentiating the current I-1 from the R-4, so combining the two resident counts into one-occupancy is appropriate.
- The detailed analysis of the current I-1, R-2 and R-4 shows essentially the same protection features between these occupancies. *(See the Attachment E Current IBC Occupancy Requirements Comparison Table)* The only differences currently between I-1 and R-2 are minor

Chapter 5 and 9 differences. There are also currently no differences between the R-2 and R-4 allowable areas and stories. So moving personal care uses that have residents capable of self evacuation such as boarding homes, halfway houses, social rehab, and some assisted living to the general Group R and specifically Group R-4 is appropriate.

D. Proposal Offers Conceptual Differentiation Between Two Letter Group Occupancies

This proposal creates a true conceptual difference between the Group I and R occupancies. It also eliminates the splitting of personal care uses between the Group I (I-1) and Group R (R-4) occupancies, based solely on the number of occupants. That current condition of changing an occupancy letter group (I and R) solely for the number of residents, only occurs in these two occupancies in the code. This proposal changes this previous "number only" split, and now provides a definitive user capability difference between Groups I and R. It makes the general Group I for persons most likely depending on others to exit a building. It creates a capability level order in Group I from limited capability to fully detained occupants:

- Group I-1 is revised for non bedridden conscious persons needing limited assistance in exiting a building.
- Group I-2 is maintained as a "protect in place" occupancy and for persons who may require full assistance to exit a building, including bedridden and unconscious patients.
- Group I-3 is maintained for persons under restraint or security.
- Group I-4 is maintained as more of an exception to typical 24 hour Group I, but who's occupants still most likely require assistance with evacuation.
- The proposal then keeps the R for overnight sleeping occupancies for persons generally capable of self preservation. It keeps transient and non transient differences in R, while now also including only capable of self preservation personal care uses.

E. **Other Proposed Assisted Living Substantiations**

The proposed IBC revisions maintain assisted living as I-1 and R-4. It keeps other non-related nursing protection features and exceptions out of these personal care service occupancies. The revisions also more closely match CMS and a majority of states existing additional building protection requirements, while having little or no cost effect.

This proposal accomplishes the following:

- **Keep sole I-2 requirements in I-2:** It keeps exclusive I-2 requirements that are not applicable to personal care, only in I-2 and not in I-1 or R-4 personal care. They include a shorter 200' general allowable travel distance in the I-2 in Chapter 10, which is offset by the proposed smaller smoke compartment area in the I-1. There are numerous egress width differences required in the I-2 occupancy i.e. 8' corridor, 44" door, .3 egress width, that are all related to bed movement of bedridden occupants in I-2. Bedridden residents are not allowed in personal care assisted living, so those requirements are not applicable to personal care and thus are not proposed here. There is also a structural redundancy requirement for I-2 because it is a protect in place occupancy, which is also not applicable to assisted living personal care. *(See Attachment G-Additional Detailed Substantiation)*
- **These proposed personal care revised resident type and associated requirements closely match approximately 40 states current state regulations and CMS regulations.** Also note that last three editions of the CMS enforced life safety regulations for personal care, used in over half the states, have removed the timing of the resident formulas used in older editions that resulted in over complexity of determining capability of residents. This removal of timing is now just referenced as a guide but is not a determinate of its occupancy classification system anymore. The lack of timing of residents and other proposed changes in the IBC for personal care assisted living are consistent with the requirements already in existence in approximately 29 states through current CMS and other state licensing requirements: allowing assistance with evacuation in a non I-2 type occupancy, NFPA 13 sprinklers, further wood framing story limitations, and smoke barriers. The proposed revisions are also similar with 11 other states current licensing requirements for a total of about 40 states that already include the concepts proposed here. This continuity of requirements create national consistency similar to what already occurs between CMS life safety regulations in nursing and the IBC I-2 requirements. *(See Attachment C-IBC Revision Summary Table and G-Additional Detailed Substantiation)*
- **Proposal allows occupancy classification options for the variations of personal care around the country:** The proposal allows assisted living in the 46 or so states that exclusively have assistance with evacuation or both assistance and no assistance categories, to use all the new appropriately categorized occupancies of I-1 and R-4, versus the current lack of applicable occupancy classifications. This then effectively eliminates the discussions that must now occur as to what IBC occupancy is to be used between the building official, fire marshal, state licensing department, and applicant, when not capable residents are proposed as often occurs.
  - The proposal allows the 4 or so states that do not allow assistance with evacuation in personal care assisted living, to keep their regulations essentially the same, and now be classified as a Group R-4 occupancy.
  - The 5 or so states assisted licensing regulations that currently require essentially I-2 assisted living exclusively, can continue doing that through their licensing regulations (as currently occurs) or update them to the proposed new IBC format and/ or current similar CMS regulations. It also allows the 10 or so states to have multiple assisted living classifications in the revised IBC due to requiring older CMS regulations or other licensing regulations.
  - This seemingly complex issue of personal care occupancy classification is now made simpler for the building code plans reviewer compared to the lack of clarity that often now occurs. These classifications are revised and based on only whether the residents are capable or not capable of evacuation: The permit applicant must still confirm the state licensing agency resident type category and comply with their regulations (usually the Department of Human Services or Department of Health).
  - The applicant will initially propose an assumed classification of I-1 or R-4. The submitted set of plans to the building department should also indicate the state license agency category, to confirm in writing that the occupancy classification is correct relative to resident counts and capabilities as defined by the state regulations. The applicant should state on the permit application drawings whether the resident type proposed are capable or not capable of self preservation. The Building Official then makes the final determination of the occupancy classification based on the applicant's statement, and/or state licensing information provided to the building official. The applicant can also be requested by the building department to quote state licensing requirements of the state licensing regulation definitions on the drawings as now often occurs. This can be accomplished because numerous states write in their regulations whether the residents are capable or not capable of self preservation. If not shown in state licensing definitions, other parts of state licensing criteria indicate capability of residents including but not limited to: the types of facilities allowed, admissions and discharge criteria, or referenced CMS enforced life safety code and their resident capability classifications. This can help prove to the Building Official whether the I-1 or R-4 is the appropriate classification.
- **Keeps personal care out of I-2.** There are advocates for moving personal care to the I-2 occupancy. This is misdirected due to the numerous reasons indicated in the above overview including: assisted living having less than the nursing level of care residents, having less staff to resident ratios, not being protect in place, and nursing having numerous non applicable exceptions and additional protection requirements due to being a protect in place occupancy.

- The major difference though is having less staff to resident ratios in assisted living. Higher staff ratios allows nursing and hospitals to be protect in place and exempt corridor protections, while also adding additional structural redundancy requirements.
- These I-2 advocates also do not recognize that moving non capable personal care to I-2 would cause a non justified increase in construction costs with no relative increased occupant protection: A majority of assisted living facilities are constructed of protected wood frame and many are over one story. Wood frame costs are generally in the $100 to $130 per square foot range for these facilities. Steel frame costs up to 5 stories, are generally in the $130 to $160 per square foot range for the limited number of these facilities built this way. Changing these personal care facilities to I-2 would cause a majority of facilities to be steel frame (I-2 limits wood frame to 1 story) for little if any protection increases in comparison to the other protection features included in this proposal. This potential construction cost increase of 20% would be an undue burden on the industry. Keeping them in the new proposed I-1 (2 story wood) and R-4 (4 story wood) will have little if any affect on construction costs, especially in the majority of states under current CMS and state regulations with similar story and protection requirements matching this proposal.

- **Other options for including both capable and non capable personal care, with their different requirements, cause as many or more revised sections to the IBC, but create or do not solve other issues.** Keeping personal care in the I-1 and R-4, while delineating capability differences between these two occupancies is the most appropriate occupancy designation solution for dealing with personal care. The following are summaries of numerous options for revising personal care. All the revision options below assume including both capable and non capable personal care while adding new requirements to non capable uses, similar to what is in this proposal. The following summary concludes that this proposal option in this submittal is the best overall long term solution to match actual conditions across the country.
  - This proposal option:
    - (+) Makes conceptual I and R use differences with I as not capable and R as capable.
    - (+) Ads new requirements in the revised I-1.
    - (+) Removes the number only split of the current I-1 and R-4.
    - (+) Best long term conceptual revision.
    - (+/-) 22 sections revised.
  - Option for making I-1 and R-4 not capable personal care, keeping current number split, and adding capable personal care to R-2:
    - (+) Leaves current I-1 and R-4 mostly in tact with just revising resident type, while adding new requirements.
    - (-) Adds capable personal care list to R-2 and mixes the use with R-2.
    - (-) Leaves the number only split of the current I-1 and R-4.
    - (+) Requires 10-15 revised sections.
  - Option for keeping the current capable I-1 and R-4, and adding not capable personal care to I-2:
    - (+) Leaves current I-1 and R-4 in tact.
    - (-) Adds not capable personal care list to I-2 and adds various exceptions for non bed, not protect in place, and lower staff ratio personal care requirements and exceptions to I-2.
    - (-) Limits not capable personal care to one story wood, increasing construction costs.
    - (-) Leaves the number only split of the current I-1 and R-4.
    - (+/-)Requires 15-20 revised sections.
  - Option for adding a new not capable personal care occupancy designation number in either I or R (R-5?):
    - (-) Creates a new occupancy
    - (-) Requires 40+ revised sections plus major IFC revisions.

ITEMIZED IBC SECTION REASONS

Section 308.2 is revised to allow residents in Group I-1 that require assistance with evacuation. Residential care/assisted living facilities and other personal care uses that are allowed by individual state licensing regulations to have these types of residents remain in this revised Group I-1.

The previous reference of "assistance from staff" is removed, since assistance can be from staff as was previously mentioned in this section, or from other residents, or from first responders, such as fire department personal. The proposed reference of just "assistance" assumes that assistance with evacuation can be from anyone. Assistance from anyone then places a resident in this category.

The term "not capable of self preservation" is not included as part of the personal care occupancy descriptions since the term is not currently defined in the IBC. The term is currently used in the I-2 and is generally accepted as meaning that an occupant is not capable of self preservation when they are incapable of responding to an emergency situation on their own to exit a building without physical assistance. The current I-1 Section 308.2 clarifies what the implied definition of capable of self preservation is by stating that occupants are capable of responding to an emergency situation on their own without physical assistance. This approach of stating the implied definition versus using the term itself is maintained in the proposed I-1 and R-4 occupancy resident type descriptions to clarify the intent without referencing a definition. The statements in the current I-1 and both the proposed I-1 and R-4, then definitively delineate resident capability classification.

Alzheimer's facilities are also specifically itemized since the Hawaii study showed that 47 states allow these facilities under assisted living licenses. *(See Attachment A-All State Summary Table).* Current CMS regulations also allow these facilities in their non nursing health care regulations. Alzheimer's facilities have additional requirements in the proposed Chapter 5 story limitation revisions. There is also a corridor protection exception to allow the current common "neighborhood" designs for Alzheimer's facilities in the proposed Chapter 4. See those section's "Reasons" for substantiation.

Some other types of uses are removed from the current I-1 list because none of those uses are considered to have occupants that are not capable of self preservation.

Group I-1 is also changed from housing more than 16 to housing over five persons, matching the current I-2 resident count. The "exceptions" for 6 to 16 occupant facilities are listed in other revised sections under I-1, instead of making a separate occupancy classification. The facilities that have residents capable of self evacuation are moved from the current I-1 category to the R-4 category since there are currently only minor differences between the I-1, R-2, and R-4 occupancies. The categories moved to the R-4 include the complete list of uses from the current I-1, since some or all of these types of facilities have residents that are capable of self preservation. They include: Alcohol and drug centers, congregate care facilities, convalescent facilities, group homes, halfway houses, social rehabilitation facilities, and the limited types of assisted living and residential care facilities that require full capability. Clarification of the differences between the I-1 and I-2 is that I-1 facilities only provide "personal care service" as appropriately defined in the current IBC. Personal care services (I-1, R-4) do not provide "chronic convalescent, health, medical or surgical care." The Group I-2 occupancy is the appropriate facility to provide those types of services. *(See Attachment C-IBC Revision Summary Table)*

The last paragraph of this section continues cross-referencing other related occupancies, which now include adding cross-referencing R-3, and referring capable personal care to the R-4 occupancy. Exceptions for complying with construction requirements for R-3 are maintained for facilities with 6-16 residents, including requiring added compliance with Section 903.2.6 (sprinklers), written in the same format as the current R-4 last paragraph description.

Section 310.1 Group R-4 is revised to include personal care facilities, all of which have residents that do not require physical assistance with evacuation, similar to the current I-1. The whole section is re-written to match the current I-1 description. These types of facilities that have residents that are capable of self evacuation are moved from the current I-1 category to the R-4 category since there are currently only minor differences between the I-1, R-2, and R-4 occupancies. The categories moved to the R-4 include the complete list of uses from the current I-1, since some or all of these types of personal care service facilities have residents that are capable of self preservation. They include: Alcohol and drug centers, congregate care facilities, convalescent facilities, group homes, halfway houses, social rehabilitation facilities, and the limited types of assisted living and residential care facilities that require full capability by certain individual state licensing regulations. *(See Attachment A-All State Summary Table)*. *(See Attachment C-IBC Revision Summary Table)*

The number of residents is revised from the current 6-16 to more than five residents. The "exceptions" for 6 to 16 occupant facilities are listed in other revised sections under R-4, instead of making a separate occupancy classification. The last paragraph of this section continues cross-referencing other related occupancies, which now include adding cross-referencing R-3.

Section 310.2 The "Residential Care/Assisted Living" definition is revised to delete the previous resident capability limitation. The revised definition states that occupancy classification is based on the ability of occupants to respond to an emergency situation with or without assistance. The limitation on not allowing assistance with evacuation is now only written into the R-4 occupancy description. The Group I-1 occupancies are revised to allow assistance with evacuation. The definition further adds text that the occupants are non bedridden persons, except during temporary common sicknesses that occur in the general public. This is added to clarify the limitation of personal care versus I-2 nursing care. It is consistent with the current "personal care" definition and current assisted living regulations across the country. See the Summary Overview substantiating the concept reasons for the change. Other aspects of the current definitions remain unchanged, since they reflect current common distinctions in the personal care service industry.

Section 420.1 Group R-4 is added since it is now proposed to be similar to the current I-1 in terms of resident types. The new R-4 requirements mostly parallel the current I-1 requirements.

Section 420.2 The exceptions for 6 to 16 occupant facilities are listed here matching current requirements, instead of making a separate occupancy classification.

Section 420.4 Smoke barriers are added as a requirement in Group I-1 occupancies with over 16 residents. They are added to I-1 due to the abilities of the new proposed resident type allowed and to match already existing CMS and state licensing regulations in a majority of states.

The section utilizes similar language and format from the current I-2 Section 407 for smoke barriers. This proposed section provides smoke barrier size and travel distance requirements that are more restrictive than the Group I-2 requirements. These limits, compared to I-2 smoke compartment size, are proposed because of the probability of less staff in personal care occupancies to assist in evacuation when compared to nursing. Smaller smoke compartments and shorter travel distance assumes less time to reach a point of safety from the compartment of origination. The proposed revisions limit the size of smoke compartments to 16 sleeping rooms, or 10,500 square feet, whichever is less, versus the 22,500 square feet allowed in I-2. The proposed limit is taken from the basic Group I-1 exceptions for over 16 occupant criteria throughout the code, or 10,500 square feet, the basic allowable area allowed in the I-1 occupancy. There are four states that have statewide amendments to the IBC for personal care implementing the overall concepts in this proposal. The State of Oregon and Hawaii statewide building code amendments reduce smoke compartment size in their non capable personal care occupancies to the approximately the size proposed here. Oregon has over a twenty year history of amendments for personal care occupancies with residents who are not capable of self preservation, including reduced smoke compartment size.

The use of the term "sleeping room" is included so not to mix the more limiting Chapter 10 occupant load calculations into this requirement. The concept is that actual sleeping rooms will be counted. The travel distance will additionally control the size. The reduction from the I-2 travel distance of 200' is reduced in the I-1 by 25 percent to 150'. This reduction is also based on the probability of less staff to assist residents in personal care during evacuation.
(See Attachment C-IBC Revision Summary Table)

Section 420.4.1 The added refuge area requirement utilizes wording matching the current I-2 Section 407.4.1.

Section 420.4.2 The added Independent egress requirement utilizes wording matching the current I-2 Section 407.4.2.

Section 420.4.3 The added Horizontal assembly requirement utilizes wording matching the current I-2 Section 407.4.3.

Section 420.5 is added to confirm that corridors are required in I-1 occupancies and to provide a scoping statement for the multipurpose areas next to sleeping room exception in lieu of corridors proposed in the new following Section 420.5.1. The language in this Section 420.5 is derived from the same scoping language requiring corridors in I-2 in Section 1014.2.2, then introducing the "suite" exception in the next Section 1014.2.3.

Section 420.5.1 is added to allow "neighborhood designs" often seen in many Alzheimer's facilities. These designs often have 10 to 16 sleeping rooms open into a common shared living, activity, and dining area. Many facilities currently using this design layout use the accessory provisions allowed in the exit access intervening room requirements in Chapter 10, or use Section 407 exceptions if classified as the I-2 occupancy. These proposed provisions utilize concepts and wording from the spaces open to corridor provisions for nursing in found Section 407.2.3.

The intent here is to allow these neighborhood designs when there are only sleeping rooms that open into the spaces as found in Alzheimer's facilities. Typical assisted living units that have their own bathroom, kitchenette, and living rooms, are dwelling units so they are excluded from utilizing this exception. They are not included in this exception due to a self contained dwelling unit not requiring a common shared living, eating and activity area just outside a sleeping room. The key controlling requirement of this exception to corridor protection is the size of the compartment by the further limiting travel distance to 75' within that smoke compartment. This affectively limits travel time before reaching the required protection areas outside the compartment. The 16 sleeping room limit is derived from the maximum number of sleeping rooms allowed in a smoke compartment in the proposed Section 419.4. Other controlling features are from Section 407.2.3.

Table 503 IBC Table 503 is proposed to be revised to reflect changes to the definitions and resident type in the revised Group I-1 occupancy:

- The proposed I-1 basic allowable areas remain with the same limits as the current I-1.
- There are revised limitations on the number of stories allowed that reflect current Federal CMS limits on these occupancies. *(See Attachment D Areas & Height Table)*
- Approximately 36 states reference Federal CMS regulations for their assisted living occupancies, so general continuity between CMS enforced regulations and the IBC should occur. The revisions to the story limitations show a variance from one to three stories. The two story limitation in Type VA construction, also match California's IBC statewide amendments to the story limitations for its similar occupancy. California's state amendments also match other key protection features of CMS board and care regulations. *(See Attachment C-IBC Revision Summary Table)*

- The two story limitation for up to one hour wood protection matches current CMS requirements and is appropriate for this occupancy due to the type of residents. These occupants are expected to be able to evacuate the building with or without assistance in case of emergencies. They are not bedridden as in I-2 nursing, (with one story limits), and with the I-2 occupants that may stay in place during emergencies in a "protect in place" occupancy. This further substantiates the difference in Group I-1 two-stories versus the Group I-2 one story. There are already numerous existing two story wood frame assisted living facilities. This will allow these existing facilities to continue to be in compliance.
- Type IIA with fire sprinklers allows three stories. This matches the Federal CMS limits.
- Type IB is allowed seven stories with fire sprinklers, half way in between the current I-1 and I-2 limits, with two more stories than the current I-2 limits. Type IB construction contains the most differences between various versions of CMS and other state enforced regulations. This proposal is an average of the difference between Federal CMS regulations and Group I-2.

Table 503 is revised for the new Group R-4 to match the current Group I-1, being that the current I-1 is essentially moved to the new R-4. The revisions here are more clerical revisions than actual revisions because of moving the current I-1 occupancy to the R-4.

Section 504.2 Exceptions. Most Group I-1 and all Group R-4 occupancies are still allowed the sprinkler increase of one story and 20 feet in height from Table 503 by the base scoping language of the unrevised Section 504.2. Group I-1 occupancies with specifically designated Alzheimer's facilities are added to the exceptions for not being allowed the sprinkler story and height increases in Type IIB, III, IV, or V construction, similar to the current I-2 exception. The wording of the phrase includes the text "specifically designated or licensed by a state" to clarify that these are specially designated facilities licensed by most state Department of Human Services or Department of Health. This text is included to exclude applying the exception to assisted living facilities that may have some residents with dementia and early Alzheimer's disease as occurs in many assisted living facilities. The exception is only intended for exclusively designated Alzheimer's facilities, due to the likelihood of all residents not being capable of self preservation.

This is an additional requirement for these facilities matching the story limitations of wood frame construction of the I-2, which most jurisdictions have categorized Alzheimer's facilities in the past. The revision affectively keeps Alzheimer's facilities with all the appropriate I-2 protection features except for non applicable protect in place and bedridden requirements. This is a practical exception versus placing these facilities in the I-2 occupancy, which would cause additional exceptions for Alzheimer's facilities due to the additional and reduced protection features required in the I-2 as stated in the Summary Overview. The State of Hawaii study also shows that Alzheimer's facilities are allowed with a special license in 47 state assisted living regulations. So keeping them in the same I-1 occupancy with the additional I-2 protection features, making them almost equivalent to I-2 protection, is appropriate.

The limitation of occurring on the first story in combustible and non protected construction is proposed because numerous state assisted living regulations and states using older CMS life safety codes limit these facilities to the first story in these construction types. (The last three editions of CMS enforced life safety code does allow two stories though.) The first story limitation is appropriate though mostly due to the likelihood that few if any of an exclusive Alzheimer's facility's residents have the capability of responding to an emergency on their own. This is compared to non Alzheimer's assisted living facilities proposed to be allowed to be two stories in height. These proposed two story types of assisted living facilities have fewer to substantially fewer occupants requiring assistance with evacuation.

Section 508.2.4 is revised to reflect the revisions to the I-1 and R-4 occupancies, now incorporating more than 5 residents. Group I-1 and R-4 are moved to number 4 of this section to cover the 16 resident exceptions for both occupancies. The exception for 16 and under residents in I-1 and R-4 occupancies is added to maintain current requirements found in the similar current R-4. This is proposed versus making a whole new occupancy classification based only on the number of residents. The revisions here are more clerical revisions than actual revisions because of revising resident counts in the I-1 and R-4.

Section 508.3.3 is revised to reflect the revisions to the I-1 and R-4 occupancies now incorporating more than 5 residents. Group I-1 and R-4 are moved to number 4 of this section to cover the 16 resident exceptions for both occupancies. The exception for 16 and under residents in I-1 and R-4 occupancies is added to maintain current requirements found in the similar current R-4. This is proposed versus making a whole new occupancy classification based only on the number of residents. The revisions here are more clerical revisions than actual revisions because of revising resident counts in the I-1 and R-4.

Table 706.4 is revised to reflect the revisions to the R-4 occupancy, being that the current I-1 is essentially moved to the new R-4 while now incorporating more than 5 residents. The revisions here are more clerical revisions than actual revisions because of essentially moving the I-1 to the R-4.

Section 710.5 is revised to include cross corridor doors in the new required smoke barriers in Group I-1, matching the same exceptions allowed for I-2. This exception matches current CMS requirements.

Section 903.2.6 is revised to require full NFPA 13 sprinkler coverage in the I-1 occupancy when housing over 16 residents. This is proposed to reflect that the new I-1 residents may require physical assistance to evacuate. The exception is revised to allow NFPA 13R in smaller facilities versus creating a whole new occupancy classification for them for the few exceptions. The requirements also match current CMS and state assisted living regulations in a majority of states. *(See Attachment A-All State Summary Table and C-IBC Revision Summary Table)*

Section 907.2.6.1 is revised to eliminate the exception for eliminating automatic smoke detection when sprinklers are provided. This proposal requires smoke detection even with sprinkler exceptions to reflect that the new less capable I-1 resident type.

Section 907.5.2.3.3 is revised to match the current I-1 and current R-4 requirements. Group R-4 is added because it is now proposed to match the current I-1 in resident capability but not in resident counts. The exception is added to match current R-4 not requiring visible alarms when there are 16 or less residents. The exception for 16 and under residents in I-1 and R-4 occupancies is added to maintain current requirements found in the similar current R-4. This is proposed versus making a whole new occupancy classification based only on the number of residents. The revisions here are more clerical revisions versus technical requirement changes solely due to moving the current I-1 to the new R-4 occupancy and changing resident counts in the occupancies.

Section 1006.1 is revised to match the current I-1 and new R-4 requirements. Group R-4 is added because it is essentially moved from the current I-1. Dwelling units are added in Group I because some I-1 uses have dwelling units, making them consistently exempt.

Section 1107.6.4 is revised to match the current I-1 with the new R-4 requirements. The revisions are clerical revisions versus technical requirement changes solely due to moving the current I-1 to the new R-4 occupancy and changing resident counts in the occupancies.

Cost Impact: The code change proposal will not increase the cost of construction due to current enforcement of similar requirements by other regulations such as CMS and state licensing regulations.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: PURGIEL-G1-308.1.DOC

ATTACHMENT A (From the State of Hawaii Analysis)

ALL STATE SUMMARY TABLE

Personal Care "Assisted Living" Regulations and NFPA/ IBC References

State ALF [1,2]	Evacuation Criteria	Type of Facility	No of Residents	Alzheimer Residents Allowed	Admission / Discharge Criteria					Referenced NFPA Codes [2, 6]			Referenced IBC [6] Occupancy	
					Evacuation Capability [3]	Ongoing Nursing Care Allowed	Bedridden Allowed	Beyond Facil. Capabilities	Other	NFPA Referenced	NFPA Occupancy Type	Other 4, 6	IBC Adoption & Stated IBC Occupancy	Assumed 16+ Res. IBC [6,7, 8]
Alabama		Family Assisted Living Facility:	2-3 adults	Yes in special units	Must at admin, AEA later	Intermittent 90 day max	No	Discharge	Severe cognitive impairment	NFPA 101, 20003 edition	1-2 Family Dwelling		J	
	AEA X	Group Assisted Living Facility:	4-16 adults	Yes in special units	Must at admin, AEA later	Intermittent 90 day max	No	Discharge	Severe cognitive impairment	NFPA 101, 20003 edition	Residential Board & Care - Impractical	1st flr only if NCSP		I-2
	AEA X	Congregate Assisted Living facility:	17+ adults	Yes in special units	Must at admin, AEA later	Intermittent 90 day max	No	Discharge	Severe cognitive impairment	NFPA 101, 20003 edition	Residential Board & Care - Impractical			
Alaska (M)		Assisted Living Home - Small	1-5 adults	Yes, not mentally ill	AEA - transfer allowed	Skilled 45 day max	45 days max	Discharge	Skilled nursing over 45 days				J	
	AEA Y	Assisted Living Home - Medium	6-11 adults	Yes, not mentally ill	AEA - transfer allowed	Skilled 45 day max	45 days max	Discharge	Skilled nursing over 45 days		Facilities based on Prompt,	NFPA 13D, 13R, 13	2000 IBC and IFC	I-2
	AEA X	Assisted Living Home - Large	12+ adults	Yes, not mentally ill	AEA - transfer allowed	Skilled 45 day max	45 days max	Discharge	Skilled nursing over 45 days		Slow and Impractical	NFPA 13D, 13R, 13		
Arizona (M)	**AEA X**	Assisted Living Home:	2-10 adults	Yes in special units		Intermittent only	Short term	Discharge	Unable to self direct care			1st flr only if NCSP	J	I-2
	AEA Y	Assisted Living Center:	11+ adults	Yes in special units		Intermittent only	Short term	Discharge	Unable to self direct care			1st flr only if NCSP		
Arkansas (M)	**X**	Assisted Living Facility Level I:	3+ adults	No	Self-evacuate required	3rd party 60 day max	No	Discharge	Unable to self-admin meds	NFPA 101, 1985 edition			J	I-1, I-2
	AEA Y	Assisted Living Facility Level II:	3+ adults	Yes w/special license	AEA - Limited assist	Intermittent 14 Day max	No	Discharge	Transfers assist beyond staffing	NFPA 101, 1985 edition			I-1 , 2000 IBC	
California (RCFE)	**AEA Y**	Residential Care Facility for Elderly		Yes w/special license		more than Intermittent care	14 days max	Discharge	Continuing nursing care	NFPA 101, 2003 edition		size & evacuation	S	I-1, I-2
		P												
Colorado (M)	**AEA Y**	Assisted Living Residence:	3+ adults	Yes in special units	Per NFPA	3rd party only	Allowed w/limits	Discharge	Continuing skilled nursing	NFPA 101, 2003 edition	Residential Board & Care		J	I-1, I-2
Connecticut (M)	**X**	Managed Residential Communities :Indepent apt.		No	Self-evacuate required	Intermittent only	No	Discharge	Continuous skilled nursing			Facility not licensed	J	I-1
	X	Assisted Living Services Agencies: Provides svcs.		No	Self-evacuate required	Intermittent only	No	Discharge	Continuous skilled nursing	NFPA 101, 2003 edition		Care is licensed	R-2, 2000 IBC	
Delaware (M)	**AEA Y**	Assisted Living facility:		Yes in special units	Cannot req. transfer	No skilled care	14 days max	Discharge	Needs transfer assistance	NFPA 101, 2000 edition	Residential Board & Care		J	I-1, I-2
Florida (M)	**AEA Y**	Assisted Living Facility:	1+ adults	Yes w/special license	Per NFPA	Intermittent only	7 days max	Discharge	Needs 24-hr skilled care	NFPA 101, 2000 edition	Residential Board & Care		S	I-1, I-2
Georgia (M) (PCH)	**AEA X**	Personal Care Homes	2+ adults		Sef-evac or 1st floor	3rd party only	need waver	Discharge	Continuous nursing care	NFPA 101, 2003 edition		Sef evac or I-2	S	I-1, I-2
Hawaii (M)	**AEA X**	Assisted Living Facility		Yes		Nursing allowed	Yes	Discharge	Danger to self & others	NFPA 101, 2006 edition			S, IBC	I-2
Idaho (M)	**AEA X**	Assisted Living Facility Small:	3-16 adults	Yes w/special license	Self-evac or I-2 Facility	Intermittent, Short term	No	Discharge	Beyond fire safety capacity of facility	NFPA 101 or 101A, 2000 ed	Residential Board & Care - Impractical	1st flr only if NCSP	J	I-1, I-2
	AEA X	Assisted Living Facility Large:	17+ adults	Yes w/special license	Self-evac or I-2 Facility	Intermittent, Short term	No	Discharge	Beyond fire safety capacity of facility	NFPA 101, 2000 edition	Limited Care			
Illinois	**AEA Y**	Assisted Living Establishment:	2+ adults	Yes in special units	Min. assist or I-2	Intermittent only	No	Discharge	Ongoing skilled nursing	NFPA 101, 2000 edition	Residential Board & Care		J	I-1, I-2
	X	Shared Housing Establishment:	1-11 adults	Yes in special units	Self-evacuation required	Intermittent only	No	Discharge	Unable to communicate needs	NFPA 101, 2000 edition	Residential Board & Care			
Indiana (M) (RCF)	**AEA X**	Residential Care Facility		Yes in special units	Up to total transfer	Nursing allowed w/license	Yes	Discharge	24-hr ongoing skilled care	State Fire Code			S	I-2
Iowa (M)	**AEA Y**	Assisted Living Facility Small:	3-16 adults	No	Up to 2 person assist	>intermittent	No	Discharge	Needs 2 person transfer	NFPA 101, 2003 edition	Resid. Board & Care - Prompt & Slow		J	
	AEA Y	Assisted Living Facility Large:	17+ adults	No	Up to 2 person assist	>intermittent	No	Discharge	Needs 2 person transfer	NFPA 101, 2003 edition	Resid. Board & Care - Prompt & Slow			I-1, I-2
	AEA Y	Dementia-Specific Assisted Living:	5+ adults	Yes		>intermittent	No	Discharge	Aggressive behavior	NFPA 101, 2003 edition	Residential Board & Care - Impractical			
Kansas	**AEA Y**	Assisted Living Facility	6+ adults	Yes in special units	1 person transfer allowed	Intermitt or limited in scope	Determined by license	Discharge	Needs 2 person transfer				J	I-2
Kentucky	**X**	Assisted Living Facility	5+ adults	Yes in special units	Self-evacuation required	3rd party only	Allowed w/limits	Discharge	Unable to evacuate by self	NFPA 101	Must evac. in 13 min unassisted inc Alz		S	I-1
Louisiana (RCF)	**AEA Y**	Assisted Living Facility - Small (Residential Care)	under 16	Yes in special units		90 day max	Temporary only	Discharge	Continuous nursing care	NFPA 101, 2006 edition			S	I-1, I-2
	AEA Y	Assisted Living Facility - Large (Residential Care)	16 & over	Yes in special units		90 day max	Temporary only	Discharge	Continuous nursing care				I-1 , 2000 IBC	
Maine (M)	**AEA Y**	Assisted Living Type I:	4+ adults	No		3rd party only	No	Discharge	Continuous nursing care	NFPA 101, 2006 edition	Residential Board & Care		J	I-1, I-2
	AEA Y	Assisted Living Type II:	4+ adults	Yes in special units		Nursing allowed	No	Discharge	Continuous nursing care	NFPA 101, 2006 edition	Residential Board & Care			
Maryland (M)	**X**	Assisted Living Program Level 1:	1+ adults	No	Self-evacuate required	Intermittent only	Short term	Discharge	Continuous nursing care	NFPA 101, 2006 edition	1-2 Family Dwelling		J	
	AEA Y	Assisted Living Program Level 2:	1+ adults	No	AEA - Slow	Intermittent only	Short term	Discharge	Continuous nursing care	NFPA 101, 2006 edition	Residential Board & Care - Slow			I-1, I-2
	AEA Y	Assisted Living Program Level 3:	1+ adults	Yes in special units	Impractical to evacuate	Skilled allowed	Short term	Discharge	Continuous nursing care	NFPA 101, 2006 edition	Limited Care			
Massachusetts (M)	**AEA Y**	Assisted Living Residences:	3+ adults	Yes w/special license	Evac. not a requirement	Intermittent by 3rd party	No	Discharge	Ongoing nursing care	State regulations			S	I-2
Michigan (M)		Adult Foster Care Family Homes:	1-6 adults	No		Intermittent only	No	Discharge	Continuous nursing care		1-2 Family Dwelling		S	

	AEA Y	Adult Foster Care Small Group Homes:	1-12 adults	No		Intermittent only	No	Discharge	Continuous nursing care	NFPA 101, 1991 edition	1-2 Family Dwelling	NFPA 13D		
	AEA Y	Adult Foster Care Large Group Homes:	13-20 adults	No		Intermittent only	No	Discharge	Continuous nursing care	NFPA 101, 1991 edition	1-2 Family Dwelling	NFPA 13R		I-1, I-2
	AEA Y	Adult Foster Care Home w/ Specialized Programs		Yes w/special license	Impractical to evacuate	Intermittent only	No	Discharge	Need skilled nursing	NFPA 101, 1991 edition	Limited Care			
Minnesota (M) (None)	**AEA X**	Housing w/Services Establishment: Class A	not licensed	Yes in special units	Min assist or I-2	Allowed	Allowed	Discharge	Need skilled nursing	NFPA 101	Limited Care	Care is licensed	S	I-1, I-2
	X	Housing w/Services Establishment: Class F	not licensed	No	Self-evacuate required	Intermittent only	No	Discharge	Continuous nursing care	NFPA 101, Residential Occup	Residential Board & Care	Care is licensed		
Mississippi (PC)	**AEA Y**	Personal Care Home - Assisted Living:	4-16 adults	Yes in special units	Up to 10% NCSP	Intermittent only	No	Discharge	Need skilled nursing	NFPA 101, Residential Occup	1-2 Family Dwelling	NFPA 13D	J	I-1, I-2
	AEA Y	Personal Care Home - Assisted Living:	16+ adults	Yes in special units	Up to 10% NCSP	Intermittent only	No	Discharge	Need skilled nursing	NFPA 101, Residential Occup	Residential Board & Care	NFPA 13		
Missouri (M)	**AEA Y**	Assisted Living Facility:	3+ adults	Yes w/special license	1 person transfer allowed	Intermittent 45 day max	No	Discharge	2 person transfer	NFPA 101, 2000 edition	sprinklers, area of refuge, 4 story limit	1st flr only if NCSP	J	I-1, I-2

Personal Care "Assisted Living" Regulations and NFPA/ IBC References

State ALF [1,2]	Evacuation Criteria	Type of Facility	No of Residents	Alzheimer Residents Allowed	Admission / Discharge Criteria					Referenced NFPA Codes [2, 6]			Referenced IBC [6] Occupancy	
					Evacuation Capability [3]	Ongoing Nursing Care Allowed	Bedridden Allowed	Beyond Facil. Capabilities	Other	NFPA Referenced	NFPA Occupancy Type	Other 4' [6]	IBC Adoption & Stated IBC Occupancy	Assumed 16+ Res. IBC [6,7, 8]
Montana (M)	**X**	Assisted Living Facility - Category A:	1+ adults	No	Self-evacuate required	Intermittent 30 day x4	No	Discharge	Treatment not appropriate	NFPA 101, 2000 edition	Residential Board & Care - Prompt	sprinklers not req	S	
	AEA X	Assisted Living Facility - Category B:	1+ adults	No		Nursing care 30 day x 4	5 bed max	Discharge	Treatment not appropriate	NFPA 101, 2000 edition	Resid. Board & Care - Slow or Impractical	sprinklers required		I-1, I-2
	AEA X	Assisted Living Facility - Category C:	1+ adults	Yes	Impractical to evacuate	Intermittent only	5 bed max	Discharge	Treatment not appropriate	NFPA 101, 2000 edition	Residential Board & Care - Impractical			
Nebraska (M)	**AEA Y**	Assisted Living Facility Level 1	4+ adults			Intermittent only	No	Discharge	Continuous nursing care	NFPA 101, 2000 edition	Resid. Board & Care - Prompt or Slow		J	I-1, I-2
	AEA X	Assisted Living Facility Level 2	16+ adults		Impractical to evacuate	No skilled care	No	Discharge	Complex or unstable condition	NFPA 101, 2000 edition	Limited Care			
Nevada (M) (RFG)	**AEA Y**	Residential Facility for Groups Category 1	3+ adults	No	AEA allowed	Intermittent only	No	Discharge	Skilled nursing care	NFPA 101, 20003 edition	Residential Board & Care - Prompt		J	
	AEA Y	Residential Facility for Groups Category 2	3+ adults	No	Impractical to evacuate	Intermittent only	No	Discharge	Ongoing nursing care	NFPA 101, 20003 edition	Residential Board & Care - Slow			I-1, I-2
	AEA Y	Residential Facility w/ Endorsement:	3+ adults	Yes	AEA allowed	Intermittent only	No	Discharge	Ongoing nursing care	NFPA 101, 20003 edition	Residential Board & Care - Impractical			
New Hampshire (M)	**AEA Y**	Residential Care Facility Basic 804:	2+ adults	No	AEA - Slow	Intermittent only	No	Discharge	Continuous nursing care	State Fire Code, Ref NFPA 101	Residential Board & Care		J	
(RCF)	**AEA Y**	Residential Care Facility Supported 805:	2+ adults	Yes	Impractical to evacuate	Allow skilled care	Yes	Discharge	Will allow acute nursing care	State Fire Code, Ref NFPA 101	Limited Care			I-2
		Residential Care - Assisted Living Facility 813:	1-3 adults	No	Self-evacuate required	Intermittent only	No	Discharge	Ongoing nursing care	State Fire Code, Ref NFPA 101	1-2 family residence			
New Jersey (M)	**AEA X**	Assisted Living Residences	4+ adults	Yes in special units		Intermittent 45 day max	Short term	Discharge	Bedridden +14 days	State Fire Code			S, I-2	I-2
New Mexico (M)	**AEA Y**	Residential Care Facilities: <Not regulated	2+ adults		AEA - Prompt & Slow	Intermittent only	No	Discharge	Continuous Nursing Care	NFPA 101	Occupancy based on bldg type & evac		J	I-1, I-2
New York (M)	**AEA X**	Assisted Living Residence:	5+ adults	No		Intermittent only	No	Discharge	Ongoing nursing care		Residential Board & Care	1st flr only if NCSP	S	I-1, I-2
	AEA X	Special Needs Assisted Living Residence:	5+ adults	For Alzheimer/Dem.	Impractical to evacuate	Intermittent only	No	Discharge	Aggressive, non-coop. behavior		Limited Care	16+ smoke barriers		
	AEA X	Enhanced Assisted Living Resident:	5+ adults	No	AEA - transfer, walking	Not cont skilled care	Not chronic	Discharge	24-hr skilled care		Residential Board & Care - Impractical	16+ smoke barriers		
North Carolina (M)	**X**	Adult Care Home:	2+ adults	No	Self-evacuate required	Intermittent 3rd party only	No	Discharge	Ongoing nursing care	N.C.Fire Code & N.C.Build Code			S	
	AEA X	Adult Care Home w/ Special Units :	2-12 adults	Yes	Impractical to evacuate	Intermittent only	No	Discharge	Ongoing nursing care	N.C.Fire Code & N.C.Build Code				I-1, I-2
	X	Assisted Housing w/Services:	2+ adults	No	Self-evacuate required	Intermittent 3rd party only	No	Discharge	Ongoing nursing care	N.C.Fire Code & N.C.Build Code				
North Dakota (M)	**X**	Assisted Living Facility:	5+ adults	No	Self-evacuate required	Limited intermittent	No	Discharge	Most are part of a health facility	Modeled on NFPA 101	Residential Board & Care - Prompt	very independent	S, I-1, most part of an I-2	I-1
Ohio (RCF)	**AEA Y**	Residential Care Facility Small:	3+ adults	Yes w/special license	AEA - no requirements	Skilled nursing 120 days	No	Discharge	Complex medical condition				S	I-2
	AEA Y	Residential Care Facility Large:	17+ adults	Yes w/special license	AEA - no requirements	Skilled nursing 120 days	No	Discharge	Skilled nursing over 120 days					
Oklahoma	**AEA Y**	Assisted Living Center:	2+ adults	Yes w/special license	AEA - transfer allowed	Intermittent only	No	Discharge	Requires med/phy restraints	NFPA 101, 2006 edition	Sprinklers, area of refuge, alarms		J	I-2
Oregon (M)	**AEA Y**	Assisted Living Facilities - SR-1:	6+ adults	Yes w/special license	AEA - Slow	Limited intermittent	No	Discharge	Skilled care, memory loss	NFPA 101, 2003 edition	Residential Board & Care - Slow	NFPA 13	S, I-1 (w/ amendments)	I-2
	AEA Y	Assisted Living Facilities - SR-2:	6+ adults	Yes w/special license	Impractical to evacuate	Limited intermittent	No	Discharge	Needs skilled care	NFPA 101, 2003 edition	Limited Care	NFPA 13	I-2 (w/ amendments)	
		Assisted Living Facilities - SR-3:	1-5 adults		AEA	Limited intermittent	No	Discharge	Skilled care, memory loss	NFPA 101, 2003 edition	Resid. Board & Care - Prompt & Slow	NFPA 13D	R-3 (w/ amendments)	
	AEA Y	Assisted Living Facilities - SR-4:	6-16 adults		AEA	Limited intermittent	No	Discharge	Skilled care, memory loss	NFPA 101, 2003 edition	Resid. Board & Care - Prompt & Slow	NFPA 13R	R-4 (w/ amendments)	
Pennsylvania (PCH)	**AEA Y**	Personal Care Home - Small:	4-9 adults	Yes w/special license	AEA	Limited intermittent	Short term	Discharge	Requiring nursing care	Modeled on IFC		based on mobility	S	I-2
	AEA Y	Personal Care Home - Large:	9+ adults	Yes w/special license	AEA	Limited intermittent	Short term	Discharge	Requiring nursing care	Modeled on IFC		based on mobility		
Rhode Island (M)	**AEA X**	Assisted Living Residence Level F1	2+ adults	Yes w/special license	Impractical to evacuate	21 days by 3rd party	No	Discharge	Ongoing skilled care		Limited Care	NCSP	S	I-1, I-2
	AEA X	Assisted Living Residence Level F2	2+ adults	No	Self-evacuate required	21 days by 3rd party	No	Discharge	Ongoing skilled care		Based on residential type	CSP		

South Carolina (M)	**X**	Community Residential Care Facilities:	2+ adults	Yes w/special license	Self-evacuate required	Intermittent, Short term	No	Discharge	Ongoing nursing care	NFPA 101, 2003 edition	Based on facility size & evacuation		S	I-1
South Dakota (M)	**AEA Y**	Assisted Living Center:	1+ adults	Yes in special units	AEA	Intermittent 28hr/week	No	Discharge	Ongoing nursing care	NFPA 101, 2000 edition	Resid. Board & Care and Limited Care	based on mobility	J	I-2
Tennessee (M)	**AEA Y**	Assisted-Care Living Facility:	1+ adults	Early stage only		21 days by 3rd party	No	Discharge	Nursing care, alzheimers	NFPA 101, 2003 edition	Resid. Board & Care & evac. time	Impract.at 1st flr only	J	I-1, I-2
Texas (M)	**AEA Y**	Assisted Living Facility Type A:	4+ adults	No	AEA - Slow	Intermittent limited	No	Discharge	Unable to self-evacuate	NFPA 101, 1988 edition	Resid. Board & Care, Slow		J	I-1, I-2
	AEA X	Assisted Living Facility Type B:	4+ adults	Yes	Allows transfer assistance	Intermittent only	No	Discharge	Ongoing nursing care	NFPA 101, 1988 edition	Resid B&C - slow (small), Limited care	based on size		
	X	Assisted Living Facility Type E:	1-16 adults	No	Self-evacuate required	Intermittent only	No	Discharge	Nursing care, alzheimers	NFPA 101, 1988 edition	Resid. Board & Care, Prompt			
Utah	**AEA X**	Assisted Living Facility Type I:	2+ adults	No	Self-evacuate required	Intermittent 60 day max	No	Discharge	Unable to self-evacuate			size	S	I-1, I-2
	AEA Y	Assisted Living Facility Type II:	2+ adults	Yes	Allows transfer assistance	General nursing OK	No	Discharge	Ongoing skilled care		Evac w/ limited assist inc. alzheimers			
Vermont (M) (RCH)	**AEA Y**	Residential Care Home Level III/ Assisted Living Res.:	3+ adults	Yes in special units		Skilled 3x/wk or 60 days	Short term	Discharge	Ongoing nursing care	Vermont Fire Code incorporates		size & evacuation	S	I-1, I-2
	AEA X	Residential Care Home Level IV:	3+ adults	No	Self-evacuate required	Limited intermittent	No	Discharge	Ongoing nursing care	NFPA 101, 2003 edition		size & evacuation		
Virginia	**AEA Y**	Assisted Living Facility	4+ adults	Yes w/special license	Non-ambulatory ok	Limited to 14 days	Y if licensed	Discharge	Continuous skilled nursing	NFPA 101, 2000 edition			S	I-1, I-2
		Assisted Living Facility (Small Group Home)	1-6 adults	No	Self-evacuation required	Limited intermittent	No	Discharge	Several health conditions	NFPA 101, 2000 edition				

Personal Care "Assisted Living" Regulations and NFPA/ IBC References

State ALF [1,2]	Evacuation Criteria	Type of Facility	No of Residents	Alzheimer Residents Allowed	Admission / Discharge Criteria: Evacuation Capability [3]	Ongoing Nursing Care Allowed	Bedridden Allowed	Beyond Facil. Capabilities	Other	Referenced NFPA Codes [2, 6]: NFPA Referenced	NFPA Occupancy Type	Other 4, 6	Referenced IBC [6] Occupancy: IBC Adoption & Stated IBC Occupancy	Assumed 16+ Res. IBC [6,7,8]
Washington (M) (AFH)		Adult Family Home Level 1:	1-6 adults	No	Self-evacuate required	Limited intermittent	14 days max	Discharge	Unable to self-evacuate	IFC	1-2 Family Dwelling		S	
		Adult Family Home Level 2:	1-6 adults	No	AEA	Limited intermittent	14 days max	Discharge	Continuous or skilled care	IFC	1-2 Family Dwelling			I-1, I-2
		Adult Family Home Level 3:	1-6 adults	Yes	Impractical to evacuate	Limited intermittent	14 days max	Discharge	Continuous or skilled care	IFC		NCSP		
	AEA Y	Boarding Home: Same 3 levels of care	7+ adults	No level 1&2, Yes level 3	Same 3 levels as AFH	Limited intermittent	14 days max	Discharge	Continuous or skilled care	IFC		sprinklers required		
West Virginia		Legally Unlicensed Health Care Home - Class I	1-3 adults	No		Limited intermittent	Y if licensed	Discharge	Ongoing or extensive nursing care	NFPA 101, 20003 edition	1-2 Family Dwelling		S	
	AEA Y	Assisted Living Residence - Class II:	4+ adults	Yes w/special license		Limited intermittent	Y if licensed	Discharge	Ongoing or extensive nursing care	NFPA 101, 20003 edition			IBC	I-1, I-2
	AEA X	Residential Care Community - Class III	17+ adults	No	Self-evacuation required	Limited intermittent	No	Discharge	Unable to self-evacuate	NFPA 101, 20003 edition			IBC	
Wisconsin (M) (CBRF)	**AEA X**	Community Based Residential Facilities - Class A	5+ adults	No	Self-evacuate required	3hr/wk, 90 day max	No	Discharge	Ongoing nursing care	NFPA 101	Based on evacuation ability & time	NFPA 13D & 13R	S	I-1, I-2
	AEA Y	Community Based Residential Facilities - Class C	5+ adults	Yes w/special license	AEA	3hr/wk, 90 day max	90 day max	Discharge	Ongoing nursing care	NFPA 101	and number of beds	NFPA 13		
Wyoming		Assisted Living Facility - Small:	1-8 adults	No	Self-evacuation required	Limited intermittent	No	Discharge	Several health conditions	NFPA 101, 2000 edition	Residential Board & Care, Prompt		J	
	AEA Y	Assisted Living Facility - Large:	9+ adults	No	AEA - Cueing Only	Limited intermittent	No	Discharge	Several health conditions	NFPA 101, 2000 edition	Resid. Board & Care - Prompt & Slow		2003 IBC	I-1, I-2
	AEA Y	Assisted Living - Large:	9+ adults	Yes	Impractical to evacuate	Limited intermittent	No	Discharge	Several health conditions	NFPA 101, 2000 edition	Limited Care		2003 IBC	
Totals	**AEA in +/- 46 States**	**Assisted Living or Similar**		**Alzheimer's**	**AEA in +/-37 States**	**Limited Nursing**	**Short term Bedridden up to**			**NFPA 101**	**NFPA and it's**		**IBC used in 50 States**	**I-1 in +/- 4 States**
Medicaid Waiver allowed in 36 States	**Y in +/- 35 States X in +/- 15 States**	**Allowed in 50 States**		**Allowed in +/- 47 States**		**Intermittent for 45-90 days max. allowed in +/- 50 States**	**7 - 45 days max. allowed in +/- 21 States**			**referenced in 37 States**	**Board & Care, and Limited Care Occupancies referenced in +/- 28 States**		**26 states adopt (S)Statewide 24 states adopt by each (J) Jurisdiction IBC Referenced in 10 state assisted regulations**	**I-2 in +/- 14 States I-1 & I-2 in +/- 32 States**

FOOTNOTES

1. If no Assisted licensing category exists in a particular State, the closest category is listed. See more detailed description in "Assisted Living Occupancy Criteria Analysis by State."
2. **(M)** Indicates Medicaid Waiver is allowed in State.
3. **AEA:** Assistance with Evacuation Allowed is specifically stated. **NCOSP:** (Not) Capable of Self Preservation
4. **Y:** NFPA resident criteria allowed with its wood construction and limitation on wood stories. No limitation of location of residents on first floor when requiring assistance with evacuation is stated.

5. **X:** Self evacuation or nursing design is required, or location of residents on first floor is required when requiring assistance with evacuation is stated.
6. **IBC**: International Building Code, **NFPA:** National Fire Protection Association, **IFC:** International Fire Code.
7. Assumed base IBC Occupancy classification as determined by this analysis without any individual State amendments or interpretations.
   If "unable to evacuate" is a criteria for discharge, then IBC I-1 (Assisted Living) is the assumed IBC classification under this analysis.
   If "unable to evacuate" is not a criteria for discharge, and assistance with evacuation is allowed, only when noted, then the interpretation by this analysis under the IBC is that the occupancy classification would be I-2 (Nursing "not capable of self preservation" i.e. resident cannot get out on their own).
   If continuous nursing is allowed, and unable to evacuate are not marked, then it is assumed that all facilities would fit into the I-2 occupancy under this analysis.
   If Alzheimer's care is allowed then I-2 occupancy is the assumed designation under this analysis.
   If NFPA Residential Board and Care is referenced, then "prompt" is assumed to be I-1, and "slow" and "impractical" are assumed as I-2.
   Assumed IBC occupancy is stated because the personal care/ assisted living occupancy is not listed as part of the IBC I-2 occupancy.
8. Where noted, most likely 2 occupancies are assumed to be used in the State dependent on "Level of Care," or whether Alzheimer's residents allowed in special licensed units.

ATTACHMENT B (From the State of Hawaii Analysis)

ELDER CARE RESIDENT PROFILE GUIDE TABLE [1]				
Retirement/ Apartments	**Assisted Living**			**Skilled Nursing**
Independent	**Minimum Assistance**	**Standby Assistance**	**Hands-on Assistance**	**Total Assistance**
IBC: R-2 [2]	**IBC: I-1 [2]**	**IBC: I-2 [2]**	**IBC: I-2 [2]**	**IBC: I-2 [2]**
NFPA: Apartments[2]	**NFPA: Board & Care[2]**	**NFPA: Board & Care[2]**	**NFPA: Board & Care[2]**	**NFPA: Health Care[2]**
Able to respond independently in an emergency	Able to respond in an emergency	May need assistance in an emergency	Needs assistance in an emergency	Needs supervision and hands-on assistance in an emergency
Able to negotiate stairs in an emergency and exit the building	Walks/transfers independently - infrequent falls	Transfers - Standby assistance may be needed	Transfers- 1 person assist usually needed, and fall risk	Transfers - 2 person assist may be needed/Mechanical lift/bedfast
ADL (Acts of Daily Living)- Resident is able to accomplish all without assistance from staff	ADL - Independent to verbal reminders	ADL - Reminders to giving verbal cues	ADL - Verbal cues and/or hands-on assistance	ADL - Hands-on assistance
Transfer & ambulate. Eats and takes medications	Independent with medications & Dr. appointments	Medication reminders and management	Medication management	Medication adjustments and behavior management
Capable of own toileting and personal hygiene	Continent of bowel and bladder	Occasional incontinence assistance	Incontinence management	Incontinence management
Bathes, dresses, grooms	Independent in bathing	Bathing set up and monitoring	Bathing assistance	Bathing assistance
Meals/housekeeping, provide if chosen. No personal care assistance or monitoring	Meals, nutrition and housekeeping assistance is helpful	Meals, nutrition and housekeeping assistance is helpful	Meals, nutrition and housekeeping assistance is helpful	Verbal cues and hands-on assistance to eat
Would benefit from socialization and activities with minor encouragement	Able to independently plan and participate in social activities	Reminders and encouragement to participate in activities	Encourage and escort to participate inactivities	Encourage and escort to activities
No memory impairment	Little memory impairment	Mild memory impairment - sometimes disoriented	Impaired memory, poor orientation and mild confusion	Needs 24 hour nursing supervision or skilled services such as physical, occupational and/or speech therapy
Capacity for decision-making and understanding consequences	Some decline in capacity for self care and understanding consequences of actions	Declining capacity for self care and understanding consequences	Limited capacity and inability to understand consequences of actions	Limited or no capacity for self care and understanding of consequences of actions
Family does not "need" to move	Family "slightly concerned"	Family "concerned"	Family "very concerned" - "Have to do something"	Family must do something

1. Based on and edited from Nevada Elder Care Assisted Living Guidelines.
2. This analysis assumed occupancy designations from the 2006 IBC and 2003 NFPA 101.

(From the State of Hawaii Analysis)

Specific Criteria of Self-Preservation:
There are very specific details of the ability of occupants of a building to be "capable of self-preservation." NFPA and its codes and guides outline very specific details of this topic. The NFPA 101A Guide on Alternative Approaches to Life Safety (2001 Edition) is referenced and summarized here to underscore the many details of self-preservation.

Chapter 6 of the NFPA defines variations of capabilities of occupants for Residential Board and Care occupancies. This is the most important aspect of determining if a building should have additional life safety elements incorporated into its design, therefore the topic is discussed in detail here. This NFPA Chapter 6 reviews capability and then offers calculation tables to determine occupant's ability of self-preservation. The review below summarizes some specific points of this NFPA Chapter 6. It then assumes the determination of self-preservation at the end of each category in *italics.*

Risk of Resistance

Some residents may resist leaving the building during an emergency situation. “Minimal risk” indicates that there is no specific evidence to suggest that the resident might resist an evacuation.

“Mild resistance” indicates that there is specific evidence that the resident had previously resisted instructions from staff or may have hidden from the staff and then might resist leaving the building in a situation similar enough to a fire emergency. “Strong resistance” includes resistance by the resident who necessitates the full attention of one or more staff members. The resident may have struggled vigorously, refused to cooperate, or has hidden in similar fire situations to predict that behavior recurring in an actual emergency.

Residents who show mild and strong resistance are considered not capable of self-preservation.

Impaired Mobility

The resident is rated according to how easily he can leave a building “given the presence of factors such as physical barriers that hinder movement (e.g. stairs), the resident’s ability to get out of bed, or the chairs normally used. The resident should be given credit for being able to use devices that aid movement (e.g., wheelchairs, walkers, crutches, and leg braces) only if those devices are always available in an emergency situation….Guiding or directing the resident by giving gentle pushes or leading by the hand is not considered requiring physical assistance.”

“Self starting” means a resident is physically able to start and complete an evacuation without physical assistance.

“Slow” is when the resident prepares to leave and travels to the exit or area of refuge at a speed significantly slower than the general population. The NFPA classifies the general
population as “prompt,” meaning they can reach an exit (point of safety or area of refuge) within approximately 3 minutes. The NFPA categorizes a resident as being “slow” if it takes the resident more than 90 or 180 seconds to travel from a sleeping room to an exit, point of safety, or area of refuge. NFPA describes “very slow” as requiring over 150 seconds to reach an exit.

Residents who are self starting and slow or very slow are considered being capable of self-preservation. Residents who are not self starting and are considered beyond slow are not capable of self-preservation.

“Needs limited assistance” means “that the resident might need some initial or brief intermittent assistance but can accomplish most of the evacuation without assistance.” The residents may require help getting into a wheelchair, descending stairs, getting out of bed, or opening a door, for example.

“Needs full assistance” means the resident either needs physical assistance from a staff member during most of the evacuation or must be assisted by staff by being carried from the facility, helped into the wheelchair and wheeled out of the facility, or helped into leg braces and helped to descend stairs.

Residents who require limited and full assistance are considered not capable of self-preservation.

Impaired Consciousness

The resident has experienced seconds or minutes of temporary impairment of consciousness over six times during the previous three months. The resident is only classified this way if the impairment would significantly interfere with his or her ability to exit the building. Temporary medical problems are also not counted in this definition. “Partially” impaired consciousness means the resident is still able to participate in an evacuation to some degree. “Totally” impaired consciousness means the resident needs full assistance by at least one staff member to evacuate out of a building.

Residents who are partially or totally impaired are considered not capable of self-preservation.

Need for Extra Help

The resident may need assistance in various circumstances from more than one staff to egress a building, whether to initially get out of bed or other individual actions or if the resident requires assistance during the duration of exiting the building.

Response to Instructions

This is the resident’s ability to receive, comprehend and follow through with simple instructions during a self directed evacuation. Residents may require non constant “supervision, considerable attention, or might not respond during an evacuation.”

Residents who need extra help or require supervision, considerable attention, or might not respond during an evacuation are considered not capable of self -preservation.

Waking Response to Alarm

Buildings with non-centralized alarm systems, residents who are on medication that inhibits responses to alarms, residents who have apparent hearing impairment (unless they are in a room with visual alarms), or if hearing aids are removed during the night, or residents who are exceptionally sound sleepers are all considered as “response not probable” to responding to an alarm.

Residents who are not probable to responding to an alarm are considered not capable of self-preservation.

ATTACHMENT C

The following Table summarizes the proposed IBC revisions **(Underlined & Bold)** and shows the correlation to CMS regulations which enforce NFPA 101 that is referenced or enforced in approximately 37 state assisted living regulations. The current 2003 and 2006 NFPA 101 requirements are referenced here, which are believed to be enforced in a growing number of states, currently estimated to be about half of the states.

Personal Care/ Assisted Living **IBC REVISION SUMMARY TABLE** & CMS: 2003/ 2006 NFPA 101 Comparison			
Code & Resident Type	**Personal Care**		
	Housing ≤ 5	**Housing 6-16**	**Housing ≥ 17**
PROPOSED IBC			
NO Assistance with Evacuation (Capable) Residents	**International Residential Code**	**R-4 (R-3)** NFPA 13R or 13D Sprinklers Wood Frame Limited to 4 Stories	**R-4** NFPA 13R Sprinklers Wood Frame Limited to 4 Stories
Assistance with Evacuation (Not Capable) Residents		**I-1(R-3)** NFPA 13R or 13D Sprinklers Wood Frame Limited to 4 Stories	**I-1** **NFPA 13 Sprinklers** **Wood Frame Limited to 2 Stories** **Smoke Barriers**
CMS NFPA 101 (2003, 2006)			
Includes all: Prompt: (Capable) & Slow/Impractical: (Not Capable) Residents	**1 & 2 Family Dwelling Code**	**Residential Board & Care (Small)** NFPA 13R or 13D Sprinklers Wood Frame Limited to 4 Stories	**Residential Board & Care (Large)** NFPA 13 Sprinklers Wood Frame Limited to 2 Stories Smoke Barriers

ATTACHMENT D (From the State of Hawaii Analysis)

NFPA/ IBC Comparison

ALLOWABLE HEIGHT AND BUILDING AREAS TABLE

For

Personal Care -Residential Board & Care/ Assisted Living Occupancies

Story Limitations Above Grade

Area Limitations Per Story

		Non-combustible								**Combustible**			
Construction Type		**Type I and II**								**Type V**			
Fire Resistive Hours [1]		**3-3-2**		**2-2-2**		**1-1-1**		**0-0-0**		**1-1-1**		**0-0-0**	
S [2] – P [3]		**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
NFPA	RB&C (>16)	UL UL	UL UL	12 55,000	NP	3 19,000	NP	2 10,000	NP	2 10,500	NP	1 4,500	NP
IBC	I-1 (>16)	UL UL	UL UL	10 55,000	NP	5 19,000	NP	4 10,000	NP	3 10,500	NP	2 4,500	NP
NFPA	RB&C (6-16)	UL UL	UL UL	12 UL	11	5 24,000	4	5 16,000	4	4 12,000	3	3 7,000	2 7,000
IBC	R-4 (6-16)	UL UL	UL UL	11 UL	NP	5 24,000	NP	5 16,000	NP	4 12,000	NP	3 12,000	2 7,000
NFPA	Health Care (>5)	UL UL	UL UL	12 UL	NP	3 15,000	NP	1 11,000	NP	1 9,500	NP	NP	NP
IBC	I-2 (>5)	UL UL	UL UL	5 UL	NP	3 15,000	NP	1 11,000	NP	1 9,500	NP	NP	NP

Footnotes:

1. Fire resistive protection of Bearing Walls – Columns – Floors are listed.
2. S – Sprinklered buildings maximum stories and allowable area.
3. NS – Non-sprinklered buildings maximum stories and allowable area.

ATTACHMENT E

CURRENT
IBC OCCUPANCY REQUIREMENTS COMPARISON TABLE

IBC Chapter	(2006 IBC) I-2 Nursing / Health Care	(2006 IBC) I-1 Assisted Living / Personal Care	(2006 IBC) R-4 Assisted Living / Personal Care	(2006 IBC) R-2 Apartments/ Permanent Sleeping
3	Chapter 3. IBC requires **health care** occupancies be a Group I-2, such as Nursing Facilities with over 5 persons not capable of self preservation.	Chapter 3. IBC requires **personal care** occupancies be Group I-1, such as Assisted Living with over 16 persons capable of self preservation. **(Same capabilities for over 16 residents)**	Chapter 3. IBC requires **personal care** occupancies be Group R-4, such as Assisted Living with 6-16 persons capable of self preservation. **(Same capabilities for under 16 residents)**	Chapter 3. IBC requires **residential** apartments and permanent sleeping occupancies be in Group R-2. **(Same capabilities in I-1, R-4, and R-2)**
4	*(407.2.) Other spaces allowed to be open to non-rated corridors.* *(407.3.) Corridor reduced protection allowed. Non-rated corridors with no door closures allowed.* **407.4.** Smoke barriers provide compartmentalization.	No exceptions for open spaces in corridors in Group I-1. (Same requirements for I-1, R-4, and R-2) No exceptions for non rated corridors or omitting door closures are allowed in Group I-1. (Same requirements for I-1, R-4, R-2) Smoke barriers are not required. (Same requirements for I-1, R-4, and R-2)	No exceptions for open spaces in corridors in Group R-4 (Same requirements for I-1, R-4, and R-2) No exceptions for non rated corridors or omitting door closures are allowed in Group R-4. (Same requirements for I-1, R-4, R-2) Smoke barriers are not required. (Same requirements for I-1, R-4, and R-2)	No exceptions for open spaces in corridors in Group R-2 (Same requirements for I-1, R-4, and R-2) No exceptions for non rated corridors or omitting door closures are allowed in Group R-2. (Same requirements for I-1, R-4,R-2) Smoke barriers are not required. (Same requirements for I-1, R-4, and R-2)
5	**Chapter 5.** Allowable areas, height and stories are more restrictive than I-1 requirements, especially in Type V construction. Chapter 5, Section 509 Special Provisions with Parking Garages. Additional areas, height and stories are the same as I-1 requirements.	Chapter 5. Allowable areas, height and stories are less restrictive than I-2 requirements, especially in Type V construction. **(Slightly less area, sometimes less stories than R-4, and R-2)** Chapter 5, Section 509 Special Provisions with Parking Garages. Additional areas, height and stories are the same in I-2 and I-1 requirements. **(Less area and less stories than R-4, and R-2)**	Chapter 5. Allowable areas, height and stories are less restrictive than I-1 requirements, especially in Type V construction. (Same for R-4, and R-2) Chapter 5, Section 509 Special Provisions with Parking Garages. Additional areas, height and stories are the same in I-2 and I-1 requirements. **(Less area and less stories than R-4, and R-2)**	Chapter 5. Allowable areas, height and stories are less restrictive than I-1 requirements, especially in Types II and V construction. (Same for R-4, and R-2) Chapter 5, Section 509 Special Provisions with Parking Garages. Additional areas, height and stories are the same in I-2 and I-1 requirements. **(Less area and less stories than R-4, and R-2)**
7	*(Chapter 7.) No separation required in I-2 occupancies between sleeping rooms with fire partitions, per Section 708.1.*	Chapter 7. Separation required in I-1 occupancies between sleeping rooms with fire partitions, per Section 708.1. (Same requirements for I-1 and R-2)	Chapter 7. Separation not required in R-4 occupancies between sleeping rooms with fire partitions, per Section 708.1. **(No requirements for R-4 due to 16 or less occupants.)**	Chapter 7. Separation required in R-2 occupancies between sleeping rooms with fire partitions, per Section 708.1. (Same requirements for I-1 and R-2)
8	**Chapter 8.** Interior wall and ceiling finish Class B requirements for I-2 occupancies.	Chapter 8. Interior wall and ceiling finish Class B and C requirements for I-1 occupancies. (Sim. for I-1, R-4, and R-2)	Chapter 8. Interior wall and ceiling finish Class B and C requirements for R-4 occupancies.(Sim. for I-1, R-4, and R-2)	Chapter 8. Interior wall and ceiling finish Class B and C requirements for R-2 occupancies. (Sim. for I-1, R-4, R-2)
9	**Section 903** A NFPA 13 automatic sprinkler system is required in I-2 occupancies. Section 907.2.6. A manual fire alarm system is required in I-2 occupancies. Section 907.2.6.2. An automatic fire detection system is required in I-2 occupancies when implementing open non-rated corridors. Section 907.9. Visual alarms are required in I-2 occupancies.	Section 903. A NFPA 13R automatic sprinkler system is required in I-1 occupancies. (Same requirements for I-1, R-4, and R-2) Section 907.2.6. A manual fire alarm system is required in I-1 occupancies. (Similar requirements for I-1, R-4, and R-2) Section 907.2.6. An automatic smoke detection system is required in I-1 occupancies spaces open to corridors. **(More requirements for I-1 than R-4, and R-2)** Section 907.9. Visual alarms and limited audible alarms are required in I-1 occupancies. **(More requirements for I-1 than R-4, and R-2)**	Section 903. A NFPA 13R automatic sprinkler system is required in R-4 occupancies. (Same requirements for I-1, R-4, and R-2) Section 907.2.6. A manual fire alarm system is not required in R-4 occupancies. **(No requirements for R-4 due to 16 or less occ.)** Section 907.2.6. An automatic smoke detection system is not required in R-4 occupancies in spaces open to corridors. **(No requirements for R-4 due to 16 or less occ.)** Section 907.9. No visual alarms and limited audible alarms are required in R-4 occupancies. **(No requirements for R-4. due to 16 or less occ.)**	Section 903. A NFPA 13R automatic sprinkler system is required in R-2 occupancies. (Same for I-1, R-4, and R-2) Section 907.2.9. A manual fire alarm system is required in R-2 occupancies with exceptions. **(Sim. req. but slightly less than I-1.)** Section 907.2.6. An automatic smoke detection system is not required in R-2 occupancies in spaces open to corridors. **(No requirements for R-4, and R-2. Less req. than I-1.)** Section 907.9. No visual alarms and limited audible alarms are required in R-2 occupancies except when fire alarms are req'd.**(No requirements for R-2 with R-2 exceptions. Less req. than I-1.)**
10	**Chapter 10.** Group I-2 requires egress width be multiplied by a .3 factor, doors for bed movement be 41.5", allows non rated "suites", 8' wide corridors for bed movement are required, and non rated corridors are allowed. All due to bed ridden occupants. **Table 1016.1.** Group I-2 requires a maximum of 200' of travel distance in sprinklered buildings.	Chapter 10. Group I-1 requires egress width be multiplied by a .2 factor, 44" wide corridors are required (no bedridden allowed), and 1-hour fire resistive corridors are required. (Same for I-1, R-4, and R-2 except for minor 1 exit options.) Table 1016.1. Group I-1 requires a maximum of 250' of travel distance in sprinklered buildings. (Same for I-1, R-4, and R-2)	Chapter 10. Group R-4 requires egress width be multiplied by a .2 factor, 44" wide corridors are required (no bedridden allowed), and 1-hour fire resistive corridors are required. (Same for I-1, R-4, and R-2 except for minor 1 exit options.) Table 1016.1. Group R-4 requires a maximum of 250' of travel distance in sprinklered buildings. (Same for I-1, R-4, and R-2)	Chapter 10. Group R-2 requires egress width be multiplied by a .2 factor, 44" wide corridors are required (no bedridden allowed), and 1-hour fire resistive corridors are required. (Same for I-1, R-4, and R-2 except for minor 1 exit option.) Table 1016.1. Group R-2 requires a max. of 250' of travel distance in sprinklered buildings. (Same for I-1, R-4, R-2)
11	**Chapter 11.** 50% accessible units and a covered entry are required in I-2 occupancies.	Chapter 11. Adaptable units are required in I-1 occupancies. (Same requirements for I-1, R-4, and R-2)	Chapter 11. Adaptable units are required in R-4 occupancies. (Same requirements for I-1, R-4, and R-2)	Chapter 11. Adaptable units are required in R-2 occupancies. (Same requirements for I-1, R-4, and R-2)
16	**Table 1604.5.** Health care facilities with 50 or more residents are Occupancy Category III, which implements more stringent structural design load reqmts. in Chapter 16 than Category II.	Table 1604.5. Personal care facilities are Occupancy Category II. (Same requirements for I-1, R-4, and R-2)	Table 1604.5. Personal care facilities are Occupancy Category II. (Same requirements for I-1, R-4, and R-2)	Table 1604.5. Residential Occupancy Category II. (Same requirements for I-1, R-4, and R-2)
NEC	**National Electric Code.** Metal conduit and hard wired nurse call systems are required.	National Electric Code. Multifamily plastic conduit and any wired or wireless approved nurse call systems are allowed.	National Electric Code. Multifamily plastic conduit and any wired or wireless approved nurse call systems are allowed.	National Electric Code. Multifamily plastic conduit and any wired or wireless approved nurse call systems are allowed.
IFC	International Fire Code. Residents do not have to participate in fire drills.	International Fire Code. Residents are encouraged to participate in fire drills.	International Fire Code. Residents are encouraged to participate in fire drills.	International Fire Code. No fire drills.

ATTACHMENT F

PROPOSED
IBC OCCUPANCY REQUIREMENTS COMPARISON TABLE

IBC Chapter	(20012) I-2 Nursing / Health Care	(2012) I-1 more than 5 residents Not Capable Personal Care	(2012) R-4 more than 5 residents Capable Personal Care	(2006 IBC) R-2 Apartments/ Permanent Sleeping
3	Chapter 3. IBC requires **health care** occupancies be a Group I-2, such as Nursing Facilities with over 5 persons not capable of self preservation.	Chapter 3. IBC requires **personal care** occupancies be Group I-1, such as Assisted Living with over ~~16~~ **5 persons NOT capable of self preservation. (Propose allowing residents needing assistance with evacuation.)**	Chapter 3. IBC requires **personal care** occupancies be Group R-4, such as Assisted Living with ~~6-16 persons~~ **over 5 persons capable of self preservation.**	Chapter 3. IBC requires **residential** apartments and permanent sleeping occupancies be in Group R-2. **(Same capabilities in I-1, R-4, and R-2)**
4	*(407.2.) Other spaces allowed to be open to non-rated corridors.*	~~No exceptions for open spaces in corridors in Group I-1.~~ **Allow limited open space for Alzheimer's rated corridors following all I-2 criteria. (Propose more stringeant requirements for I-1 than I-2)**	No exceptions for open spaces in corridors in Group R-4.	No exceptions for open spaces in corridors in Group R-2 (Same requirements for I-1, R-4, and R-2)
	(407.3.) Corridor reduced protection allowed. Non-rated corridors with no door closures allowed.	No exceptions for non rated corridors or omitting door closures are allowed in Group I-1. (Same requirements for I-1, R-4, R-2)	No exceptions for non rated corridors or omitting door closures are allowed in Group R-4. (Same requirements for R-4, R-2)	No exceptions for non rated corridors or omitting door closures are allowed in Group R-2. (Same requirements for I-1, R-4,R-2)
	407.4. Smoke barriers provide compartmentalization.	~~Smoke barriers are not required.~~ **Add smoke barrier reqmts. (Propose more stringent requirements for I-1 as I-2)**	Smoke barriers are not required. (Same requirements for R-4, and R-2)	Smoke barriers are not required. (Same requirements for I-1, R-4, and R-2)
5	**Chapter 5.** Allowable areas, height and stories are more restrictive than I-1 requirements, especially in Type V construction.	Chapter 5. Allowable areas, height and stories are less restrictive than I-2 requirements, especially in Type V construction. **(Propose to limit wood frame and others up to type IIB to 2 stories and limit Type IIA to 3 stories with sprinklers similar to CMS.)**	Chapter 5. Allowable areas, height and stories are the same as 2006 less restrictive than I-1 requirements, especially in Type V construction. **(Revise to match current I-1 requirements.)**	Chapter 5. Allowable areas, height and stories are less restrictive than I-1 requirements, especially in Types II and V construction. (Same for R-4, and R-2)
	Chapter 5, Section 509 Special Provisions with Parking Garages. Additional areas, height and stories are the same as I-1 requirements.	Chapter 5, Section 509 Special Provisions with Parking Garages. Additional areas, height and stories are the same in I-2 and I-1 requirements. **(Less area and less stories than R-4, and R-2)**	Chapter 5, Section 509 Special Provisions with Parking Garages. Additional areas, height and stories are the same in I-2 and I-1 requirements. **(Revise to match current I-1 requirements.)**	Chapter 5, Section 509 Special Provisions with Parking Garages. Additional areas, height and stories are the same in I-2 and I-1 requirements. **(Less area and less stories than R-4, and R-2)**
7	*(Chapter 7.) No separation required in I-2 occupancies between sleeping rooms with fire partitions, per Section 708.1.*	Chapter 7. Separation required in I-1 occupancies between sleeping rooms with fire partitions, per Section 708.1. (Same requirements for I-1 and R-2)	Chapter 7. Separation ~~not~~ **now** is required in R-4 occupancies between sleeping rooms with fire partitions, per Section 708.1 **with over 16 residents. (Same requirements for I-1, R-2, and R-4)**	Chapter 7. Separation required in R-2 occupancies between sleeping rooms with fire partitions, per Section 708.1. (Same requirements for I-1 and R-2)
8	**Chapter 8.** Interior wall and ceiling finish Class B requirements for I-2 occupancies.	Chapter 8. Interior wall and ceiling finish Class B and C requirements for I-1 occupancies. (Sim. for I-1, R-4, and R-2)	Chapter 8. Interior wall and ceiling finish Class B and C requirements for R-4 occupancies.(Sim. for I-1, R-4, and R-2)	Chapter 8. Interior wall and ceiling finish Class B and C requirements for R-2 occupancies. (Sim. for I-1, R-4, R-2)
9	**Section 903.** A NFPA 13 automatic sprinkler system is required in I-2 occupancies.	Section 903. ~~A NFPA 13R automatic sprinkler system is required in I-1 occupancies.~~ **Require NFPA 13. (Propose same requirements for I-1 as I-2).**	Section 903. A NFPA 13R automatic sprinkler system is required in R-4 occupancies. **(Same for ~~I-1,~~ R-4, and R-2) (Revise to match current I-1 requirements.)**	Section 903. A NFPA 13R automatic sprinkler system is required in R-2 occupancies. (Same for I-1, R-4, and R-2)
	Section 907.2.6. A manual fire alarm system is required in I-2 occupancies.	Section 907.2.6. A manual fire alarm system is required in I-1 occupancies. (Similar requirements for I-1, R-4, and R-2)	Section 907.2.6. A manual fire alarm system is not required in R-4 occupancies. **(Revise to match current I-1 and R-4 requirements.)**	Section 907.2.9. A manual fire alarm system is required in R-2 occupancies with exceptions. **(Sim. req. but slightly less than I-1.)**
	Section 907.2.6.2. An automatic fire detection system is required in I-2 occupancies when implementing open non-rated corridors.	Section 907.2.6 and .10.1.3. An automatic smoke detection system is and smoke alarms are required in I-1 occupancies. **(Remove exception for sprinklers exempting smoke detection and detectors in I-1.)**	Section 907.2.6. An automatic smoke detection system is not required in R-4 occupancies in spaces open to corridors. **(Revise to match current I-1 and R-4 requirements.)**	Section 907.2.6. An automatic smoke detection system is not required in R-2 occupancies in spaces open to corridors. **(No requirements for ~~R-4, and~~ R-2. Less req. than I-1.)**
	Section 907.9. Visual alarms are required in I-2 occupancies.	Section 907.9. Visual alarms and limited audible alarms are required in I-1 occupancies.	Section 907.9. ~~No~~ visual alarms and limited audible alarms are required in R-4 occupancies. **(Revise to match current I-1 and R-4 requirements.)**	Section 907.9. No visual alarms and limited audible alarms are required in R-2 occupancies except when fire alarms are req'd. **(No requirements for R-2 with R-2 exceptions. Less req. than I-1.)**
10	**Chapter 10.** Group I-2 requires egress width be multiplied by a .3 factor, doors for bed movement be 41.5", allows non rated "suites", 8' wide corridors for bed movement are required, and non rated corridors are allowed. All due to bed ridden occupants.	Chapter 10. Group I-1 requires egress width be multiplied by a .2 factor, 44" wide corridors are required (no bedridden allowed), and 1-hour fire resistive corridors are required. (Same for I-1, R-4, and R-2 except for minor 1 exit options.)	Chapter 10. Group R-4 requires egress width be multiplied by a .2 factor, 44" wide corridors are required (no bedridden allowed), and 1-hour fire resistive corridors are required. (Same for I-1, R-4, and R-2 except for minor 1 exit options.)	Chapter 10. Group R-2 requires egress width be multiplied by a .2 factor, 44" wide corridors are required (no bedridden allowed), and 1-hour fire resistive corridors are required. (Same for I-1, R-4, and R-2 except for minor 1 exit option.)
	Table 1016.1. Group I-2 requires a maximum of 200' of travel distance in sprinklered buildings.	Table 1016.1. Group I-1 requires a maximum of 250' of travel distance in sprinklered buildings. (Same for I-1, R-4, and R-2)	Table 1016.1. Group R-4 requires a maximum of 250' of travel distance in sprinklered buildings. (Same for I-1, R-4, and R-2)	Table 1016.1. Group R-2 requires a max. of 250' of travel distance in sprinklered buildings. (Same for I-1, R-4, R-2)
11	**Chapter 11.** 50% accessible units and a covered entry are required in I-2 occupancies.	Chapter 11. Adaptable units are required in I-1 occupancies. (Same requirements for I-1, R-4, and R-2)	Chapter 11. Adaptable units are required in R-4occupancies. (Same requirements for I-1, R-4, and R-2)	Chapter 11. Adaptable units are required in R-2 occupancies. (Same requirements for I-1, R-4, and R-2)
16	**Table 1604.5.** Health care facilities with 50 or more residents are Occupancy Category III, which implements more stringent structural design load reqmts. in Chapter 16 than Category II.	Table 1604.5. Personal care facilities are Occupancy Category II. (Same requirements for I-1, R-4, and R-2)	Table 1604.5. Personal care facilities are Occupancy Category II. (Same requirements for I-1, R-4, and R-2)	Table 1604.5. Residential Occupancy Category II. (Same requirements for I-1, R-4, and R-2)
NEC	**National Electric Code.** Metal conduit and hard wired nurse call systems are required.	National Electric Code. Multifamily plastic conduit and any wired or wireless approved nurse call systems are allowed.	National Electric Code. Multifamily plastic conduit and any wired or wireless approved nurse call systems are allowed.	National Electric Code. Multifamily plastic conduit and any wired or wireless approved nurse call systems are allowed.
IFC	International Fire Code. Residents do not have to participate in fire drills.	International Fire Code. Residents are encouraged to participate in fire drills.	International Fire Code. Residents are encouraged to participate in fire drills.	International Fire Code. No fire drills.

ATTACHMENT G

ADDITIONAL DETAILED SUBSTANTIATION

SUMMARIZATION OF THE 2007 HAWAII ASSISTED LIVING ANALYSIS

The following information is a summarization based on the information found in the "Assisted Living Analysis of All State Regulations Relative to Building Codes and Life Safety Codes," conducted for the State of Hawaii in 2007, from here on referenced as the "Assisted Living Analysis."

The I-1 occupancy is appropriately categorized as a "personal care" occupancy in the IBC. It is different than Group I-2 "health care," which includes nursing and hospitals for health and medical treatment. The largest population base of the personal care uses is assisted living, matching the current nursing population nationwide. Assisted living is the category of concern for the current I-1 occupancy. Nationwide assisted living is regulated by each state differently. Generally speaking assisted living residents:

- Are given assistance with activities of daily living (ADL's) by being given "personal care" services of meals, social and physical assistance, housekeeping, bathing, medication and similar assistance.
- Are generally slower to ambulate than the general population.
- May require staff assistance to evacuate.
- May have different levels of dementia, including Alzheimer's.
- May be incapable of following directions under emergency conditions.
- May require assistance in transferring to and from a wheelchair.
- Are never allowed to be permanently bedridden.
- Are never allowed to have continuous nursing care beyond temporary illness

The Assisted Living Analysis was commissioned by the State of Hawaii to review their assisted living resident types relative to building code regulations. It accomplished the following:

- Researched all 50 States regulations relative to the subject of capabilities of residents and associated regulations.
- Created a 2 page Summary Table of all 50 States regulations, evacuation capability requirements, and IBC assumptions or requirements (Attached).
- Noted that CMS or state regulations required NFPA 101 conformance or was referenced in 37 states, so analyzed NFPA requirements and cross referenced them with IBC requirements.
- Compared nearby State IBC amendments.
- Created Findings and Conclusions.
- Gave national recommendations.
- Made recommendations specific to the State of Hawaii based on the findings and preferences of the State of Hawaii Department of Health.

The findings are summarized as follows:

- "Assisted living or similar State licensed designation is allowed in all 50 States.
- Assistance with evacuation for residents is allowed in assisted living in approximately 46 States.
- Assistance with evacuation is allowed in 51 of the total 89 assisted living categories serving more than five residents in the 50 states.
- NFPA 101 Life Safety Code compliance is referenced in approximately 37 State assisted living licensing requirements.
- Alzheimer residents are allowed in assisted living facilities or in specially designated assisted living facilities in approximately 47 States.
- Temporary limited intermittent nursing care for up to 45 to 90 days is allowed in all 50 States, if care can be properly provided by the facility.
- Residents in assisted living are allowed to be short-term bedridden for up to 7 – 45 days due to temporary illness in approximately 21 States, if care can be properly provided by the facility.
- The IBC is used in all 50 States by local jurisdiction or State-wide adoption.
- The IBC occupancy designation of I-1 and its criteria for residents is exclusively applicable in approximately 4 States for assisted living."

OTHER REFERENCED STANDARDS

The Assisted Living Analysis shows that approximately 37 states require or reference NFPA 101 Life Safety Code conformance in their licensed assisted living facility regulations. The NFPA 101 code is often enforced by the Centers for Medicare and Medicaid Services (CMS) which is related to Medicaid reimbursement.

All of the states that utilize the NFPA 101 Life Safety Code for their assisted living regulations, classify them as the NFPA personal care Residential Board and Care occupancy. This occupancy classification allows residents that may not be fully capable of self preservation, requiring physical assistance to evacuate. The NFPA 101 from the 1980's and up to the 2000 edition, allows residents categorized as "prompt" and "slow" to reside in this occupancy. Residents up to and including the slow category are able to reach a point of safety within 13 minutes. Assisted living facilities with over five residents and with residents categorized as "impractical (over 13 minutes) are then required to conform to NFPA 101 "Limited Care" requirements found in its Health Care Chapter 18.

Essentially the NFPA Limited Care has slightly less stringent requirements than the rest of their Chapter 18 Health Care requirements. Those regulations essentially match the IBC I-2 requirements. Conformance requires the following:

- Wood frame is limited to one story. Three stories require 1 hour non combustible construction.
- Allows nonrated and open corridors.
- Requires smoke barriers.
- Requires NFPA 13 automatic sprinklers.
- Limited Care allows exceptions to the requirements for 44" door and 8' corridors.

It also be noted that due to federal regulation of the nursing industry, conformance to NFPA 101 is required nationally. The IBC I-2 and NFPA New Health Care Occupancy requirements are generally and specifically the same.

The 2003 and the most current 2006 NFPA 101 Life Safety Code revised its approach to the large (over 16) personal care Residential Board and Care (assisted living) occupancy. This occupancy classification is NFPA's equivalent IBC I-1 occupancy classification. Approximately 25 of the 37 states reference compliance with these two most recent editions of NFPA 101:

- **The timing of residents is removed as a requirement for classification and is now just referenced in its Guide on Alternative Approaches to Life Safety. The occupancy now allows prompt, slow and impractical residents.**
- **Facilities with impractical residents are now allowed in this Residential Board and Care occupancy and are not required to be in the Limited Care occupancy anymore.**

- It reduces wood frame construction from 4 stories to 2 stories.
- It adds the requirements for smoke barriers.
- It adds the requirements for NFPA 13 automatic sprinklers.
- It does not require corridor door rating.
- It requires evacuation drills meet its health care chapter requirements.
- It keeps most other Residential Board and Care requirements the same, which are generally consistent with the other current IBC I-1 requirements.

Revisions to the IBC should better generally match the current NFPA 101 Residential Board and Care occupancy criteria and requirements. There should be more consistency in assisted living regulations similar to the consistency between The IBC I-2 and NFPA 101 Health Care requirements.

OTHER STATES IBC AMENDMENTS

There are also at least three states that amend the IBC at a statewide level to incorporate similar aspects of allowing residents that may require assistance with evacuation. Hawaii is also currently in the process of approving similar amendments.

- California, Oregon, and Washington all allow residents that may require assistance in evacuation in their amended IBC I-1 (assisted living) occupancies.
- Oregon and California further limit wood frame stories. Oregon limits wood frame to three stories and requires a horizontal exit in multi story wood frame structures. California limits wood frame to two stories.
- All Add smoke barrier requirements.
- Oregon and California add NFPA 13 automatic sprinklers.

PROTECTION FEATURE SAMPLING OF RECENT PROJECTS

The proponent of this proposal works in an architectural firm that has designed over 200 senior housing projects in 19 states during the past 20 years. The firm has seen inconsistent application of the I-1 occupancy classification since numerous states started enforcing the IBC after 2003. The below information gives a sampling of what is occurring nationally, and offers insight into the inconsistent application of the code due to the issue presented in this proposal. The conclusion that this firm has is that every individual jurisdiction has to be negotiated as to what occupancy requirements are to be applied to assisted living facilities. This is due to the occupant type limitations the IBC places in the I-1 and R-4 requirements when compared to what most states licensing agencies allow. Negotiating each individual project's occupancy requirements is a time consuming, costly, and increased risk issue for developers. The only exceptions for this firm are for projects in the three states that have already amended their building code at a state-wide level (California, Oregon, and Washington.)

Many States are more similar to the Idaho, Nevada, Oklahoma, and Texas examples below. They have no actual IBC amendments to the I-1 or R-4 occupancy. They are like the 37 states that also require compliance with NFPA Residential Board and Care criteria referenced in their State assisted living regulations.

The examples below show different life safety design solutions on a sampling of ten of the firm's last similar assisted living projects since 2004. The two Idaho examples show two different occupancy classifications and construction type requirements for very similar projects. This exemplifies one of the key issues when designing these facilities. It is the construction cost difference between wood frame and steel frame construction. The limited jurisdictions that require assisted living construct to I-2 standards are not necessarily adding appropriate protection to the occupants of these facilities. They may add up to 25 percent in construction cost by requiring I-2 steel frame construction type in a two story building. That subject will be reviewed in more detail later in this substantiation.

A review of the IBC, NFPA 101 and its referenced building code NFPA 5000, along with the State licensing criteria is required when designing facilities in most States like Idaho and Nevada. The most stringent requirements of each code must be found and implemented. Complying with up to three different sets of regulations is complicated when all three may have differing criteria and requirements. The main issue is that most State regulations and NFPA allow evacuation assistance but the IBC does not. That compounds the complexities of dealing with overlapping requirements. That is the main reason why the IBC should be revised. The examples below show how this variation of requirements can cause undo increases in construction cost. It also shows inconsistent application of the IBC causing inconsistent building design.

The summarization of these 10 similar assisted living projects shows:

- 10 required IBC conformance.
- 10 allowed assistance with evacuation mostly through IBC alternate means.
- 9 different states.
- 9 implemented smoke barriers, mostly as alternate means.
- 8 implemented NFPA 13 sprinklers, mostly as alternate means.
- 7 allowed the Group I-1 occupancy classification, implementing some I-2 requirements.
- 7 required NFPA 101 compliance due to state licensing criteria.
- 7 were allowed to be built with wood frame of either two or three stories.
- 3 were required to be built with steel frame of either two or three stories.
- 2 required conformance to I-2 requirements because no equivalency was allowed.
- Construction cost varied from $110 to $170 per square foot, mostly due to requirements for different construction types even though the use was the same.

2005 Alaska Assisted Living Project

- The building cost was $130 per square foot.
- The IBC with no amendments was enforced by the local jurisdiction.
- The local fire marshal enforced the NFPA 101.
- State assisted living licensing allows residents that may need assistance with evacuation.
- A building code alternate means was accepted to allow the resident type for the **Group I-1** occupancy:
    - Residents requiring assistance with evacuation were limited to the first floor.
    - Smoke barriers were required.
    - NFPA 13 sprinklers were required.
    - The two story building was allowed to be Type VA (wood frame).

2007 California Assisted Living Project

- The building cost was $120 per square foot.
- The IBC was enforced with California statewide amendments.
- There were no NFPA 101 requirements.

- State assisted living licensing allows residents that may need assistance with evacuation.
- No Alternate means were required due to the California IBC amendments allowing the resident type in its **Group I-1** occupancy, and being consistent with NFPA 101 current Board and Care requirements:
    - Residents requiring assistance with evacuation were allowed.
    - Smoke barriers were required.
    - NFPA 13 sprinklers were required.
    - The two story building was allowed to be Type VA (wood frame), the maximum allowed under California's amendments.

2007 Colorado Assisted Living Project

- The building cost was $130 per square foot.
- The IBC with no amendments was enforced by the local jurisdiction.
- State assisted living licensing required conformance to the 2006 NFPA 101.
- State assisted living licensing allows residents that may need assistance with evacuation.
- A building code alternate means was accepted to allow the resident type for the **Group I-1** occupancy, allowing for the implementation of NFPA 101 requirements as an equivalency:
    - Residents requiring assistance with evacuation were allowed.
    - Smoke barriers were required.
    - NFPA 13 sprinklers were required.
    - The two story building was allowed to be Type VA (wood frame).

2005 Idaho Assisted Living Project

- The building cost was $110 per square foot.
- The IBC with no amendments was enforced by the local jurisdiction.
- State assisted living licensing required conformance to 2000 NFPA 101.
- State assisted living licensing allows residents that may need assistance with evacuation.
- A building code alternate means was accepted to allow the resident type for the **Group I-1** occupancy, allowing for the implementation of NFPA 101 and Oregon's SR IBC amendments as an equivalency:
    - Residents requiring assistance with evacuation were allowed.
    - Smoke barriers were required.
    - Horizontal exits were required.
    - NFPA 13 sprinklers were required.
    - The two story building was allowed to be Type VA (wood frame).

2006 Idaho Assisted Living Project

- The building cost was $160 per square foot.
- The IBC with no amendments was enforced by the local jurisdiction.
- State assisted living licensing required conformance to 2003 NFPA 101.
- State assisted living licensing allows residents that may need assistance with evacuation.
- A building code alternate means was not accepted to allow the resident type, then requiring the building comply with IBC **Group I-2** requirements:
    - Residents requiring assistance with evacuation were allowed.
    - Smoke barriers were required.
    - NFPA 13 sprinklers were required.
    - The two story building was required to be Type IIA (steel frame).

2008 Nevada Assisted Living Project

- The building cost was $170 per square foot.
- The IBC with no amendments was enforced by the local jurisdiction.
- State assisted living licensing required conformance to 2006 NFPA 101.
- State assisted living licensing allows residents that may need assistance with evacuation.
- A building code alternate means was accepted to allow the resident type for the **Group I-1** occupancy, allowing for the implementation of some I-2 requirements, and NFPA 101 Limited Care requirements as an equivalency:
    - Residents requiring assistance with evacuation were allowed.
    - Smoke barriers were required.
    - NFPA 13 sprinklers were required.
    - The negotiations exempted other I-2 requirements for metal conduit, I-2 fire detection, 44" doors, 8' corridors, and structural redundancy to save cost, since it was not considered a nursing or health care facility.
    - The three story building was required to be Type IIA (steel frame).

2008 Oklahoma Assisted Living Project

- The building cost is $110 per square foot.
- The IBC with no amendments was enforced by the local jurisdiction.
- State assisted living licensing required conformance to 2003 NFPA 101.
- State assisted living licensing allows residents that may need assistance with evacuation.
- A building code alternate means was **not** accepted to allow the resident type. The builing is currently being designed to meet **IBC current Group I-2** requirements to allow residents not capable of self preservation. This increased the cost of the project by approximately $25 per square foot required for I-2 and steel frame construction cost. The State is also considering legislation in a statute to require "I-II" (meaning I-2) design in a hastily written statute for assisted living with residents needing assistance, based mostly on the IBC current limitations.
    - Residents requiring assistance with evacuation are allowed.
    - IBC Group I-2 NFPA 13 sprinklers were required.
    - The two story building was allowed to be Type IIA (steel frame).

2006 Oregon Assisted Living Project

- The building cost was $110 per square foot.
- The IBC was enforced with Oregon statewide amendments.
- State assisted living licensing required conformance to 2000 NFPA 101.
- State assisted living licensing allows residents that may need assistance with evacuation.
- No Alternate means were required due to the Oregon IBC amendments allowing the resident type in its **Group I-1** (Oregon SR-1) occupancy, and being consistent with NFPA 101 current Board and Care requirements:
    - Residents requiring assistance with evacuation were allowed.
    - Smoke barriers were required.
    - NFPA 13 sprinklers were required.
    - Horizontal exits are required in multi story wood frame buildings.
    - The three story building was allowed to be Type VA (wood frame), the maximum allowed under Oregon's amendments.

2008 Texas Assisted Living Project

- The building cost is $170 per square foot.
- The IBC with no amendments is enforced by the local jurisdiction.
- State assisted living licensing require conformance to 2000 NFPA 101.
- State assisted living licensing allows residents that may need assistance with evacuation.
- A building code alternate means was accepted to allow the resident type for the **Group I-1** occupancy, allowing for the implementation of some I-2 requirements, and NFPA 101 Limited Care requirements as an equivalency:
    - Residents requiring assistance with evacuation are allowed.
    - Smoke barriers are proposed.
    - NFPA 13 sprinklers are proposed.
    - The request exempts other I-2 requirements for metal conduit, I-2 fire detection, 44" doors, 8' corridors, and structural redundancy to save cost, since it was not considered a nursing or health care facility.
    - The three story building is proposed to be Type IIA (steel frame).

2006 Washington Assisted Living Project

- The building cost was $110 per square foot.
- The IBC was enforced with Washington statewide amendments.
- There were no NFPA 101 requirements.
- State assisted living licensing allows residents that may need assistance with evacuation.
- No Alternate means were required due to the Washington IBC amendments allowing the resident type in its **Group I-1** (Washington LC) occupancy, and being consistent with NFPA 101 current Board and Care requirements:
    - Residents requiring assistance with evacuation were allowed.
    - Smoke barriers were required.
    - NFPA 13R sprinklers were required.
    - The three story building was allowed to be Type VA (wood frame), the maximum allowed in Washington is four stories.

This review shows that there is inconsistent implementation of evacuation criteria, construction type, sprinkler type, and smoke barriers. This inconsistency can be corrected by incorporating the proposed IBC amendments.

IBC I-1 VERSUS I-2 OCCUPANCY CLASSIFICATION

Some jurisdictions believe that these assisted living facilities should be categorized in the Group I-2 occupancy. This proponent believes that personal care assisted living requiring physical evacuation assistance, should remain in the Group I-1 occupancy.

The Group I-1 and R-4 occupancies provide personal care services as currently defined in the IBC. They do not allow bedridden residents, or provide nursing or health care services, except for short term illness. The current IBC definitions for personal care and assisted living are consistent with the general assisted living regulations across the country except for the requiring of residents to have full capability to egress. There are enough differences between actual I-1 personal care residents and staff and the I-2 health care residents and staff to warrant different occupancy classifications. There are also I-2 nursing exceptions that reduce protection that may not be appropriate for I-1 occupancies. The three key differences between I-1 assisted living and I-2 nursing occupancies are as follows:

- Capabilities of the residents are different. Assisted living residents may require more limited physical assistance in evacuation than nursing residents. Assisted living residents are not bedridden except for temporary illness. Nursing facility residents can be require more physical assistance in evacuation and may be permanently bedridden.
- Assisted living residents participate in fire drills and are trained to egress to a point of safety and then to exit the building in an emergency, with or without assistance. Nursing I-2 occupancies are considered "protect in place," meaning that residents do not generally participate in fire drills, and may wait for rescue in their rooms.
- Assisted living uses generally may have less required staffing levels, notably during the evening and overnight shifts than required nursing facility staff levels. There may not be the same amount of staff in assisted living to allow for the "protect in place" concept that I-2 nursing affords (including allowing I-2 unprotected corridors).

The attached "Current IBC Occupancy Requirements Comparison Table" for I-2, I-1, R-4, and R-2, shows all the detailed differences between the I-1 and I-2 requirements. That table is summarized as follows:

- I-2 exclusively has exceptions for rating corridors and open spaces to corridors.
- I-2 exclusively requires smoke barriers.
- I-2 has more restrictive area and story limitations than I-1.
- I-2 has Class B interior ratings versus B and C for I-1.
- I-2 requires NFPA 13 sprinklers versus NFPA 13R for I-1.
- I-2 means of egress has a more restrictive .3 egress width load factor, corridor and door width bed movement provisions, and a 200' travel distance limitation.
- I-2 has a .3 structural redundancy load factor requirement that is not required in I-1.
- The National Electric Code requires health and nursing care in I-2 use metal conduit and hard wired nurse call that is not generally required in I-1.

The proposed code revisions utilize an appropriate mix of I-1 and I-2 requirements for the Group I-1 that best fits personal care and assisted living occupancies. Refer to the "Proposed IBC Occupancy Requirements Comparison Table" (Attached) for a detailed list of the proposed revisions concepts for all the occupancies discussed. The proposed revisions are consistent with what NFPA and other states require in similar occupancies that are noted in detail prior in this justification. The Group I-1 occupancy is proposed to:

- Allow assistance with evacuation.
- Uses the terms "personal care" for I-1 and R-4.
- Uses the term "health care" for I-2 differentiating I-2 from I-1 and to correlate I-2 with the term "health care" used in the following regulations: IBC Chapter 16, State licensing, State and jurisdictional enforcement of NFPA 101, and The National Electrical Code (NEC).
- Keep the occupancy as personal care, not health care.
- Limit wood frame and non combustible construction to between current I-1 and I-2 requirements.
- Add smoke barrier requirements due to the new resident type allowed.
- Requires additional smoke detection requirements.
- Add NFPA 13 automatic sprinkler requirements.
- Keep the 6-16 resident facilities in place by adding exceptions for areas, construction, and sprinklers.

The proposed revisions utilizes only key provisions from I-2 into the I-1 for allowing persons who may need physical evacuation assistance, including story limitations, smoke barriers, and NFPA 13 sprinklers. This is consistent with other states amendments and current NFPA101 requirements.

The revisions do not utilize the current IBC I-2 Chapter 4 corridor exceptions reducing protection, Chapter 8 interior finish requirements, Chapter 10 bed movement egress limitations, or Chapter 16 additional structural redundancy requirements. The corridor, finish, and bed movement egress limitations are specifically for nursing or health care occupancies so it is not appropriate to include these in personal care occupancies. The non protected corridor allowance in nursing makes the correct assumption of higher staff levels than in assisted living. It also takes into account that nursing is protect in place. The structural redundancy requirements are for non essential health care facilities with over 50 occupants. This is appropriate for those protect in place occupancies that may keep the occupants in the building during emergencies. Personal care occupancies have occupants that leave the building during emergencies. This difference eliminates the need for additional structural redundancy. These I-2 requirements are not included in the new I-1 because they are only appropriate for health care and not for personal care uses.

IBC I-1 VERSUS R OCCUPANCY CLASSIFICATION

The proposed amendments essentially move the current resident type in Groups I-1 and R-4 to Group R-4. This keeps an occupancy group for personal care uses that do not allow assistance with evacuation, such as some categories of assisted living in some states. It also moves other personal care uses capable of evacuation without assistance from the current I-1 to the proposed R-4, including halfway houses, congregate care, social rehabilitation and other types of residential facilities. The proposed amendments keep the current 6-16 resident facilities with residents who may need assistance with self evacuation in the Group R-4 occupancy by adding exceptions. The proposed revisions are also consistent with current I-1, R-4, and R-2 requirements. The Current IBC Occupancy Requirements Comparison Table (Attached) shows that the current I-1 and R-2 have essentially the same requirements. Both occupancies assume that occupants are generally capable of responding to emergencies.

The Current IBC Occupancy Requirements Comparison Table shows basically no substantial life safety differences between Groups I-1, R-4 and R-2 occupancy requirements. The only real measurable difference is allowable story and area differences in Chapter 5. A summary of the only differences shown in the table between the current I-1 and R-2 substantiates why the current I-1 best fits in the current general "Group R" occupancy:

- I-1 is for personal care versus R-2 is general "residential."
- I-1 is for over 16 persons and R-2 is one or two family dwellings and for non transient sleeping residents.
- I-1 has less area and sometimes less story limitations with no extra stories allowed in Section 508. There are two construction types in the I-1 that require one less story. The allowable area is less in the I-1 from 1,500 to 6,000 square feet when compared to the R-2.
- There are some minor differences in smoke and visual alarm requirements.

The proposed code revisions for the R-4 are consistent with current I-1 and R-4 requirements. Refer to the "Proposed IBC Occupancy Requirements Comparison Table" (Attached) for a detailed list of the proposed revisions concepts for all the occupancies discussed. The Group R-2 occupancy is proposed to:

- Not allow assistance with evacuation.
- Adds personal care uses to the occupancy.
- Keeps the I-1 area and story limitations converted to the new R-4.
- Keep current I-1 requirements for NFPA 13R automatic sprinkler requirements.
- Keep current I-1 requirements for manual fire alarms, smoke alarms, and visual alarms.
- Keep the capable of self evacuation 6-16 resident facilities in the R-4 occupancy allowing for exceptions in various sections.

OTHER OPTIONS

The proposed solution for the I-1 and R-4 occupancies is not the only option for correcting the issue with these classifications in the IBC. The proponent believes the proposed amendments are the best overall most practical solution when all things are considered. The proposed revisions are not a "perfect solution. Advocates in the "personal" care industry prefer not being classified with the "I-Institutional" occupancies. They prefer being considered "residential." Note that even the existing I-1 classification description in Section 308.2 states that "residents live in a supervised residential environment that provides personal care services." This seems a contradiction to many in the industry, including the proponent of these amendments. There is a preference stated by some that all personal care be moved out of the "I" occupancy to the "R-Residential" occupancy. The proponent is not an advocate of this option because it would most likely create too many other issues as noted below.

The proponent does not advocate this "R" option because of the following:

- The main reason is that it would probably require creating a new occupancy classification (R-5?) versus the proposed keeping the existing occupancies in tact.
- It would require serious questions about what to do with the current I-1 designation. It could be used for Alzheimer's, but there is not enough difference to create an occupancy classification for Alzheimer's. Otherwise, if all personal care moved to the R classification, then the I-1 may end up not being used at all.
- Finally, another main issue is that moving all personal care to the R occupancy would most likely cause a major amount of code section changes. This "complete move" option would probably require two to three times the amount of code section changes than in this proposal.
- There were already major occupancy revisions in most states between 2003 and 2005 when the old regional codes were deleted for the adoption of the new IBC. Moving all personal care to the R classification would cause another major occupancy revision to the relatively newly established IBC personal care occupancies. This could cause confusion with occupancy permits, classifications, and requirements with three major occupancy classification revisions in 10 years for personal care uses.
- Due to the above, the argument for moving all personal care to the Group R is more philosophical than practical.

Finally, this proponent has a second option that encompasses similar concepts found in the submitted proposal but maintains the resident counts as currently in the I-1 and R-4 occupancies. This option keeps the R-4 as the 6-16 person occupancy but allowing non capable residents. It allows non capable resident in I-1 with over 16 residents. It moves all capable personal care to the R-2. It was not submitted for two main reasons: The proponent did not think it was as appropriate to continue to split personal care between the Group I and R based solely on the number of occupants. It was also perceived that advocates of keeping occupancies similar would not have approved moving capable personal care to the R-2 even though it has similarities. This other option has its merit only requiring 13 code section changes and no occupant number changes. Overall the proposal submitted was chosen due to the fact that it conceptualizes a long term solution to continuity of occupancy classification between to different letter groups. It makes the Group I for persons not capable of self preservation and for persons under detention. It makes the R for overnight occupancies for persons generally capable of self preservation. This proposal is the most appropriate and practical solution for the revision of the personal care occupancies.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: PURGIEL-G1-308.1.DOC

G22–09/10

308.2 (IFC [B] 202), 308.3, 308.3.1, 310.2, 1107.5.2

Proponent: Jay Hall, Virginia Fire Safe Construction Advisory Committee

Revise as follows:

SECTION 308
INSTITUTIONAL GROUP I

308.1 (IFC [B] 202) Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure. or a portion thereof, in which people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, 1-2, 1-3 or 1-4.

308.2 (IFC [B] 202) Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to slow evacuation in an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

Alcohol and drug centers
~~Assisted living facilities~~
Congregate care facilities
~~Convalescent facilities~~
Group homes
Halfway houses
Residential board and care facilities
Residential care
Social Rehabilitation facilities

A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons shall be classified as Group R-4.

308.3 (IFC [B] 202) Group 1-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing, assisted living or custodial care for persons who are not capable of self-preservation or where complete evacuation is impractical. This group shall include, but not be limited to, the following:

Assisted living facilities
Child care facilities
Convalescent facilities
Detoxification facilities
Hospice care
Hospitals
Mental hospitals
Nursing homes

308.3.1 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

ASSISTED LIVING FACILITIES. Buildings, or portions thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provide personal care services and in addition could provide convalescent, medical, nursing or hospice care. The occupants are not capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to the following: Mental care facilities, nursing homes, assisted living facilities, convalescent facilities, and hospice care facilities.

CHILD CARE FACILITIES. Facilities that provide care on a 24-hour basis ~~to more than five~~ for children, 2½ years of age or less.

DETOXIFICATION FACILITIES. Facilities that serve patients who are provided treatment for substance abuse on a 24-hour basis and who are incapable of self-preservation or who are harmful to themselves or others.

EVACUATION LEVELS

Impractical evacuation. The movement of all occupants, residents and staff to an exit in more than 13 minutes.

Slow evacuation. The movement of all occupants, residents, and staff to an exit in more than three minutes, but not more than thirteen minutes.

HOSPITALS AND MENTAL HOSPITALS. Buildings or portions thereof used on a 24-hour basis for the medical, psychiatric, obstetrical or surgical treatment of inpatients who are incapable of self-preservation.

INDEPENDENT LIVING STATUS. A resident that is assessed as capable of performing all activities of daily living and instrumental activities of daily living for himself without requiring the assistance of another person and is assessed as capable of taking medications without the assistance of another person. Where the policy of a facility dictates that medications are administered or distributed centrally without regard for the residents' capacity, this policy shall not be considered in determining independent status.

NURSING HOMES. Nursing homes are long-term care facilities on a 24-hour basis, including both intermediate care facilities and skilled nursing facilities, serving more than five persons and any of the persons are incapable of self-preservation.

310.2 Definitions. The following words and terms shall, fro the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

RESIDENTIAL CARE~~/ASSISTED LIVING~~ A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides *personal care services.* The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to the following: residential board and care facilities, ~~assisted living facilities~~, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and ~~convalescent facilities~~ residential care facilities where all residents have independent living status.

1107.5.2 Group I-2 nursing homes and assisted living facilities. Accessible units and Type B units shall be provided in nursing homes and assisted living facilities of Group I-2 occupancies in accordance with Sections 1107.5.2.1 and 1107.5.2.2.

Reason: This proposal addresses a disconnect between assisted living facilities (ALF) and the current building code.

Based on the current definition for Group I-1, which include ALF, residents are expected to be able to respond to an emergency without any assistance from staff. Today's ALF simply do not operate that way and even the Dept. of Social Services regulations in many states allow for or demand a percentage of non-ambulatory patients.

The census shows a continued increase in the population of older adults, age 65 and older. Given that fact, it is not surprising that we have already seen large increases in senior marketed housing and Assisted Living Facilities (ALF). Construction starts for Assisted living facilities are expected to grow even more to accommodate the rising number of adults who will need assistance for daily activities. Bathing, dressing, toileting, and transferring are a few examples of assistance.

In placing the Assisted Living Facilities use under the Group I-1 there is a tacit acknowledgement that residents in these facilities will eventually need protection levels beyond that provided by the Group I-1, however, no guidance is given to the code official to determine when the level of assistance needed has reached a maximum and the resident needs to be moved to an Group I-2 facility.

Based on the statistics from the U.S. fire Administration, and the National fire data center, older adults are at the highest risk of dying in a fire. The concept behind the existing placement of the ALF use within the Group I-1 is that though the residents may be slower to evacuate, they are still capable of self evacuation without physical assistance. Facilities that house residents not capable of responding to an emergency without physical assistance are classified as Nursing homes or hospitals. Higher degrees of fire safety and life safety are required in these facilities because the code recognizes a higher need for defend in place protection and that evacuation would be difficult or impractical, depending on the condition of the resident and involvement of fire and smoke. In practice most ALF would find themselves in a similar predicament if faced with a fire emergency.

The reality is that many of the residents in ALF are not capable of self preservation. As a result, many facilities go out of compliance with the building code soon after opening, and enforcement is difficult due to a lack of measurable performance standard in the code to be applied by code enforcers. Code enforcers cannot be expected to perform medical/physical/psychiatric assessments of the facility residents, nor should they. Most times the facility operators itself is also not aware of building code limitations based upon their group designation and they are also wrestling with the desires of the resident and family members who may not wish to be moved to a different facility, or even a different wing in the same facility.

In an emergency it obvious that many residents will need assistance to evacuate. Staffing levels nor building construction have been enhanced to balance the added time needed to evacuate. Some patients may not even be able to physically endure evacuating depending on their condition and the amount of smoke and heat present. This may be compounded by the responding fire department having limited resources during the initial response phase.

The lack of definitive guidance for code officials on when a resident goes from needing the protection levels or an R Group, to a Group I-1 to an Group I-2 is incomprehensible when the International Fire Code requires emergency action plans to be developed, submitted and approved by the fire code official for the Group I and specifies that drills be conducted, including evacuation of all residents in an ALF occupancy. What criteria is used to determine if the evacuation was timely?

The criteria has been available and progressive jurisdictions, such as the State of New Jersey, have used that criteria to provide for improved levels of safety for residents of these facilities, and clear guidance to designers and code officials. Virginia is also currently considering a similar proposal and many other states recognize the same problem and are seeking a solution.

The guidance is found in the NFPA 101 Life Safety Code.

From the 2008 edition (and is in previous editions):

3.3.70* Evacuation Capability*. The ability of occupants, residents, and staff as a group either to evacuate a building or to relocate from the point of occupancy to a point of safety.*

3.3.70.1 Impractical Evacuation Capability. *The inability of a group to reliably move to a point of safety in a timely manner.*

3.3.70.2 Prompt Evacuation Capability*. The ability of a group to move reliably to a point of safety in a timely manner that is equivalent to the capacity of a household in the general population.*

3.3.70.3 Slow Evacuation Capability*. The ability of a group to move reliably to a point of safety in a timely manner, but not as rapidly as members of a household in the general population.*

A.3.3.70 Evacuation Capability. *The evacuation capability of the residents and staff is a function of both the ability of the residents to evacuate and the assistance provided by the staff. It is intended that the evacuation capability be determined by the procedure acceptable to the authority having jurisdiction. It is also intended that the timing of drills, the rating of residents, and similar actions related to determining the evacuation capability be performed by persons approved by or acceptable to the authority having jurisdiction. The evacuation capability can be determined by the use of the definitions in 3.3.70, the application of NFPA 101A, Guide on Alternative Approaches to Life Safety, Chapter 6, or a program of drills (timed).*

Where drills are used in determining evacuation capability, it is suggested that the facility conduct and record fire drills six times per year on a bimonthly basis, with a minimum of two drills conducted during the night when residents are sleeping, and that the facility conduct the drills in consultation with the authority having jurisdiction. Records should indicate the time taken to reach a point of safety, date and time of day, location of simulated fire origin, escape paths used, and comments relating to residents who resisted or failed to participate in the drills.

Translation of drill times to evacuation capability is determined as follows

(1) 3 minutes or less — prompt
(2) Over 3 minutes, but not in excess of 13 minutes — slow
(3) More than 13 minutes — impractical

Evacuation capability, in all cases, is based on the time of day or night when evacuation of the facility would be most difficult, such as when residents are sleeping or fewer staff are present.

Evacuation capability determination is considered slow if the following conditions are met:

(1) All residents are able to travel to centralized dining facilities without continuous staff assistance.
(2) There is continuous staffing whenever there are residents in the facility.

This proposal addresses the problem by building the evacuation criteria into the group designation language. When an applicant submits a set of plans for review the plans must include the Group and the requirements of that group become a condition of occupancy when the facility is constructed and occupied. This is no different than when an applicant provides information on how much hazardous materials will be present in an effort to show that the proposed use is not an H Group. The MAQ for hazardous materials becomes a measurable condition of occupancy.

Once occupied, the evacuation parameters in the group designations become the standard the fire code official can measure against when fire drills are conducted or a violation of the certificate of occupancy is suspected. This will help ensure that residents are in the facilities that can provide the proper level of safety.

This proposal also includes moving Assisted Living Facilities from the Group I-1 to the Group I-2 as the most appropriate designation based upon the limitations of many residents of assisted living facilities and the fact that most, if not all of the residents transition to needing increased levels of care once admitted to a facility.

There is no getting around the fact that today's ALF does not fit into an Group I-1. Read Virginia's Assisted Living regulations at http://www.dss.virginia.gov/files/division/licensing/alf/regulations_code/applicable_regulations/032-05-010-17.pdf

Other States have similar regulations.

You will see that ALF facilities are allowed by their regulations to provide care for those cannot sense or even recognize danger, much less respond to it, as well as a multitude of other health conditions where the resident cannot respond to an emergency. Interestingly enough it also says that the facility shall comply with all fire safety regulations by the USBC. So, there is the first disconnect. They are out of compliance with both their regulations and the building code. It is hard to blame the assisted living people, the building code has been evolving too. It now clearly recognizes, that those that cannot reasonably respond be provided with added fire safety, Group I-2 construction and safety features. Those who can respond and under the care of a facility are provided with the systems to give more time for evacuation such as early detection, NFPA 13R, and some light compartmentation in corridors and dwelling units.

Realizing that people who move in and are perfectly capable of responding, will all age in place at the same rate but with different affects. Some will remain healthy and some will not. Some slow down and some will require wheel chairs, walkers etc. and this can change from day to day. Who will ever know, except the resident and maybe the facility, if the resident can or cannot respond to emergency without assistance on a day to day basis? How can this ever be regulated and monitored closely for each resident? Nightmare for all concerned, especially the resident.

The 13 minute evacuation time is an objective time limit that is a combination of the facilities ability and the resident's ability to manage getting the residents out and to safety in a reasonable time. If by combination of both, the facility can achieve total evacuation of the premises in 13 min. then we have a reasonably safe condition no matter how many times the resident/s needed a little more assistance in getting themselves in the right direction. If the residents are the type of residents that the code expects, then 13 minutes should be very achievable with no increase in staffing.

When the resident in no longer able to respond, yes they will need to be relocated, to a facility where they can age in place, and have the systems in place that acknowledge the resident will not be evacuating. From that point on, the building code cares not whether the resident went to a nursing home or an assisted living facility, either way and based on any changes that the DSS may have, assisted living facilities will be in compliance with the building code without the fire official or the facility being concerned with how many might be non-ambulatory at one time on any given day, week or month.

If applied at the time of construction the cost impact is minimal.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HALL-G1-308.2

G23–09/10

308.2, 308.3, 308.3.1, 308.5, 308.5.1, 308.5.2, 310.1 (IFC [B] 202), 1107.5.2

Proponent: Robert J Davidson, Code Consultant, Alan Shuman, President, The National Association of State Fire Marshals (NASFM)

Revise as follows:

308.2 (IFC [B] 202) Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than ~~16~~ five persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of ~~responding to~~ slow evacuation in an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

Alcohol and drug centers
~~Assisted living facilities~~
Congregate care facilities
Convalescent facilities
Group homes
Halfway houses
Social rehabilitation facilities
Residential board and care facilities

A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2 provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.8. ~~A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4~~.

308.3 (IFC [B] 202) Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care for persons ~~who are not capable of self-preservation~~ where evacuation is impractical. This group shall include, but not be limited to, the following:

Assisted living facilities
Child care facilities
Detoxification facilities
Hospitals
Mental hospitals
Nursing homes

308.3.1 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

CHILD CARE FACILITIES. Facilities that provide care on a 24-hour basis ~~to more than five~~ for children, 2½ years of age or less.

DETOXIFICATION FACILITIES. Facilities that serve patients who are provided treatment for substance abuse on a 24-hour basis and who are incapable of self-preservation or who are harmful to themselves or others.

EVACUATION LEVELS

Impractical evacuation. The movement of all occupants, residents and staff to an exit in more than 13 minutes.

Slow evacuation. The movement of all occupants, residents, and staff to an exit in more than three minutes, but not more than thirteen minutes.

Prompt evacuation. The movement of all occupants, residents, and staff to an exit in three minutes or less.

HOSPITALS AND MENTAL HOSPITALS. Buildings or portions thereof used on a 24-hour basis for the medical, psychiatric, obstetrical or surgical treatment of inpatients who are incapable of self-preservation.

NURSING HOMES. Nursing homes are long-term care facilities on a 24-hour basis, including both intermediate care facilities and skilled nursing facilities, serving more than five persons and any of the persons are incapable of self-preservation.

308.5 (IFC [B] 202) Group I-4, day care facilities. This group shall include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage or adoption, and in a place other than the home of the person cared for. A facility such as the above ~~with~~ accessory to a dwelling unit and having five or fewer persons shall be classified as a Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2 provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.8. Places of worship during religious functions are not included.

308.5.1 (IFC [B] 202) Adult care facility. A facility that provides ~~accommodations for less than 24 hours for more than five unrelated adults and provides~~ supervision and personal care ~~services~~ on less than a 24-hour basis where evacuation is slow or impractical, shall be classified as Group I-4.

Exception: A facility where occupants are capable of ~~responding to an emergency situation~~ prompt evacuation without physical assistance from the staff, is accessory to a dwelling unit and having five or fewer persons shall be classified as Group R-3.

308.5.2 (IFC [B] 202) Child care facility. A facility that provides supervision and personal care on less than a 24-hour basis for ~~more than five~~ children 2 1/2 years of age or less shall be classified as Group I-4.

~~Exception: A child day care facility that provides care for more than five but no more than 100 children 2 1/2 years or less of age, when the rooms where such children are cared for are located on a level of exit discharge serving such rooms and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.~~

310.1 (IFC [B] 202) Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the International Residential Code in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Boarding houses (transient)
Hotels (transient)
Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (not transient)
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Vacation timeshare properties

Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units.
Adult facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Congregate living facilities with ~~16~~ five or fewer persons.

Adult and child care facilities that are within a single-family home are permitted to comply with the International Residential Code provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.8.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the *International Residential Code* provided the building is protected by an *automatic sprinkler system* installed in accordance with Section 903.2.8.

1107.5.2 Group I-2 nursing homes and assisted living facilities. Accessible units and Type B units shall be provided in nursing homes and assisted living facilities of Group I-2 occupancies in accordance with Sections 1107.5.2.1 and 1107.5.2.2.

Reason: The purpose of this proposal is to correct a serious disconnect in life safety between what is contained within the IBC and what occurs in the field and to provide a sound solution that is both fair and effective.

The census shows a continued increase in the population of older adults, age 65 and older. Given that fact, it is not surprising that we have already seen large increases in senior marketed housing and Assisted Living Facilities (ALF). New construction for assisted living facilities are expected to grow even more to accommodate the rising number of adults who will need assistance for daily activities. Bathing, dressing, toileting, and transferring are a few examples of assistance.

In placing the Assisted Living Facilities use under the I-1 Group there is a tacit acknowledgement that residents in these facilities will eventually need protection levels beyond that provided by the I-1, however, no guidance is given to the code official to determine when the level of assistance needed has reached a maximum and the resident needs to be moved to an I-2 Group facility.

Based on the statistics from the U.S. fire Administration, and the National fire data center, older adults are at the highest risk of dying in a fire. The concept behind the existing placement of the ALF use within the I-1 Group is that though the residents may be slower to evacuate, they are still capable of self evacuation without physical assistance. Facilities that house residents not capable of responding to an emergency without physical assistance are classified as I-2 such as Nursing homes or hospitals. Higher degrees of fire safety and life safety are required in these facilities because the code recognizes a higher need for defend in place protection and that evacuation would be difficult or impractical, depending on the condition of the resident and involvement of fire and smoke. In practice most ALF would find themselves in a similar predicament if faced with a fire emergency.

The reality is that many of the residents in ALF are not capable of self preservation. As a result, many facilities go out of compliance with the building code soon after opening, and enforcement is difficult due to a lack of measurable performance standard in the code to be applied by code enforcers. Code enforcers cannot be expected to perform medical/physical/psychiatric assessments of the facility residents, nor should they. Most times the facility operators themselves are not aware of building code limitations based upon their group designation and they are also wrestling with the desires of the resident and family members who may not wish to be moved to a different facility, or even a different wing in the same facility.

In an emergency it obvious that many residents will need assistance to evacuate. Neither staffing levels nor building construction have been enhanced to balance the added time needed to evacuate. Some patients may not even be able to physically endure evacuating depending on their condition and the amount of smoke and heat present. This may be compounded by the responding fire department having limited resources during the initial response phase.

The lack of definitive guidance for code officials on when a resident goes from needing the protection levels or an R Group, to a I-1 Group to an I-2 Group is incomprehensible when the International Fire Code requires emergency action plans to be developed, submitted and approved by the fire code official for the I Group and specifies that drills be conducted, including evacuation of all residents in an ALF occupancy. What criteria is used to determine if the evacuation was timely?

The criteria has been available and progressive jurisdictions, such as the State of New Jersey and the State of Georgia, have used that criteria to provide for improved levels of safety for residents of these facilities, and clear guidance to designers and code officials.

The guidance is found in the NFPA 101 Life Safety Code.

From the 2008 edition (and is in previous editions):

3.3.70* Evacuation Capability*. The ability of occupants, residents, and staff as a group either to evacuate a building or to relocate from the point of occupancy to a point of safety.*

3.3.70.1 Impractical Evacuation Capability. *The inability of a group to reliably move to a point of safety in a timely manner.*

3.3.70.2 Prompt Evacuation Capability*. The ability of a group to move reliably to a point of safety in a timely manner that is equivalent to the capacity of a household in the general population.*

3.3.70.3 Slow Evacuation Capability*. The ability of a group to move reliably to a point of safety in a timely manner, but not as rapidly as members of a household in the general population.*

A.3.3.70 Evacuation Capability. *The evacuation capability of the residents and staff is a function of both the ability of the residents to evacuate and the assistance provided by the staff. It is intended that the evacuation capability be determined by the procedure acceptable to the authority having jurisdiction. It is also intended that the timing of drills, the rating of residents, and similar actions related to determining the evacuation capability be performed by persons approved by or acceptable to the authority having jurisdiction. The evacuation capability can be determined by the use of the definitions in 3.3.70, the application of NFPA 101A, Guide on Alternative Approaches to Life Safety, Chapter 6, or a program of drills (timed).*

Where drills are used in determining evacuation capability, it is suggested that the facility conduct and record fire drills six times per year on a bimonthly basis, with a minimum of two drills conducted during the night when residents are sleeping, and that the facility conduct the drills in consultation with the authority having jurisdiction. Records should indicate the time taken to reach a point of safety, date and time of day, location of simulated fire origin, escape paths used, and comments relating to residents who resisted or failed to participate in the drills.

Translation of drill times to evacuation capability is determined as follows:

(1) 3 minutes or less — prompt
(2) Over 3 minutes, but not in excess of 13 minutes— slow
(3) More than 13 minutes — impractical

Evacuation capability, in all cases, is based on the time of day or night when evacuation of the facility would be most difficult, such as when residents are sleeping or fewer staff are present.

Evacuation capability determination is considered slow if the following conditions are met:

(1) All residents are able to travel to centralized dining facilities without continuous staff assistance.
(2) There is continuous staffing whenever there are residents in the facility.

This proposal addresses the problem by building the evacuation criteria into the group designation language. When an applicant submits a set of plans for review the plans must include the Group and the requirements of that group become a condition of occupancy when the facility is constructed and occupied. This is no different than when an applicant provides information on how much hazardous materials will be present in an effort to show that the proposed use is not an H Group. The MAQ for hazardous materials becomes a measurable condition of occupancy.

Once occupied, the evacuation parameters in the group designations become the standard the fire code official can measure against when fire drills are conducted or a violation of the certificate of occupancy is suspected. This will help ensure that residents are in the facilities that can provide the proper level of safety.

This proposal also includes moving Assisted Living Facilities from the Group I-1 to the Group I-2 as the most appropriate designation based upon the limitations of many residents of assisted living facilities and the fact that most, if not all of the residents transition to needing increased levels of care once admitted to a facility. If applied at the time of construction the impact is minimal.

Wherever there is an allowance to construct a facility under the International Residential Code language has been added, *"provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.8."* to make sure this important level of protection is provided. Though the IRC was amended to require the installation of automatic sprinkler systems, various builder groups have been waging a state by state campaign to prevent that change from taking effect. They have been successful in some states making this modification imperative to provide the necessary level of safety.

The proposal also reduces from 16 to 5 the number of residents considered appropriate for applying the I-1 Group. While even 5 individuals in home with limited abilities to self evacuate can present a challenge to responding fire service personnel, That number is the traditional number associated with one and two family occupancies and even under legacy code would not have been prohibited. But to allow greater than that number of individuals lacking the ability to self evacuate in a building without the proper levels of protection places the residents at risk and risks the lives of the fire service that arrive and have to attempt rescue of the residents lacking the proper level of protection.

The adult care and child care uses have been modified. The adult care has been modified in a manner similar to the I-1 and I-2 to provide for a qualifier on resident self evacuation capabilities. Many of these occupants have the same personal care needs as those in an assisted living facility, but because of family only need part-time care. The designation of the R-3 group in this case was modified to specify that the option is only available if the adult day care is "accessory" to the dwelling use which is the appropriate allowance. R-3 with its lower safety requirements should not be permitted for someone simply establishing an adult care business not associated with their dwelling.

Child care has been modified that the activity is an I-4 regardless of the number of children below the age of 2.5 years of age. Children that young are for the most part required to be physically removed from harms way during an evacuation, many times on a one ton one basis and as a result the higher level of protection features is needed.

The change to Section 1107.5.2 is a companion change to a proposal to move assisted living facilities to Group I-2 as the appropriate classification for assisted living facilities due to the limitations in mobility and cognitive awareness on the part of many of those living in an assisted living facility. These individuals are also entitled to accessible units to address their limitations just as occupants of a nursing home. In many cases it is a fine line between whether someone lives within an assisted living facility or needs the care provided by a nursing home with occupants having disabilities prevalent in both types of occupancies.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: DAVIDSON-SHUMAN-G2-308.2.doc

G24–09/10
308.2 (IFC [B] 202)

Proponent: Tom Lariviere, Chairman, representing Joint Fire Service Review Committee

Revise as follows:

308.2 (IFC [B] 202) Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

Alcohol and drug centers
Assisted living facilities
Congregate care facilities
Convalescent facilities
Group homes
Halfway houses
Residential board and care facilities
Social rehabilitation facilities

A facility such as the above ~~with~~ housing five or fewer persons shall be classified as Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2, provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.8. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.

Reason: This proposal will continue to allow the smaller congregate care facilities to be constructed either as an R-3, or under the IRC. But when the IRC is used for this facility, the facility must be sprinklered.

If a new structure is built, it will be required to be sprinklered. A new facility can be constructed either as an R-3 under the IBC which will require a fire sprinkler system, or as a one-family dwelling under the IRC which will also require a fire sprinkler system is installed. However, many congregate care facilities open and occupy an existing structure. This revision will require that when an existing single family home is used as a small congregate care facility, it will also be sprinklered.

These occupancies, even though housing less than six occupants, still have the same clientele as the I-1 occupancy. The facility is still a Group Home, a Congregate Care Facility, or an Assisted Living Facility, etc. Many of the occupants in these facilities have limited capability or delayed response for self-preservation in an emergency.

This proposed wording in this proposal was approved in Item G36 07-08 for R-4 occupancies where a similar concept applies. The sprinkler system provides the desired level of life safety regardless of whether the facility houses 5 or 6 occupants.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: LARIVIERE-G1-308.2

G25–09/10
309.1 (IFC [B] 202)

Proponent: Gene Boecker, AIA, Code Consultants, Inc., representing Code Consultants, Inc.

Revise as follows:

309.1 (IFC [B] 202) Mercantile Group M. Mercantile Group M occupancy includes, among others, the use of a building or structure, or a portion thereof, for the display and sale of merchandise and involves stocks of goods, wares or merchandise incidental to such purposes and accessible to the public.

Exceptions:

1. A building used for mercantile purposes with an occupant load of less than 50 persons shall be classified as a Group B occupancy.
2. A room or space used for mercantile purposes with an occupant load of less than 50 persons and accessory to another occupancy shall be classified as Group B occupancy or as part of that occupancy.

Mercantile occupancies shall include, but not be limited to, the following:

(Portions of text not shown remain unchanged)

Reason: This is similar to the provision already included in 303.1 for assembly spaces. If a deli serves food and has a place to sit, it could be an Assembly occupancy. However the exception in 303.1 allows the space to be classified as a Group B occupancy. If that deli does not have seating it would logically be classified as a Group M occupancy without the exception.

Similarly, a small gift shop in a large facility would need to be addressed as a separate occupancy. The same size café would be granted the exception in 303.1 of being considered as a part of that main occupancy. The gift shop, however, would not. This is incongruous with a reasonable approach to similar conditions. The exceptions will allow small spaces where goods are sold to be treated in a like manner whether seating is provided or not.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BOECKER-G1-309.1

G26–09/10
310.1(IFC 202), 310.2

Proponent: Sarah A. Rice, CBO, representing self

Revise as follows:

310.1 (IFC 202) Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code* in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

~~Boarding houses (transient)~~
Congregate living facilities (transient) accommodating more than 10 occupants.
Bed and breakfast
Boarding house
Hotels (transient)
Motels (transient)

~~Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements of Group R-3.~~

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartments
Congregate living facilities (nontransient) accommodating more than 16 occupants
Boarding House ~~(non-transient)~~
Convents
Dormitories
Fraternities ~~and sororities~~
Monastaries
Sororities
Hotels ~~(non-transient)~~
Live/work units
~~Monastaries~~
Motels ~~(nontransient)~~
Vacation Timeshare properties

~~Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3~~

R-3 Residential occupancies where the occupants are primarily permanent in nature (non-transient) and are not classified as a Group R-1, R-2, R-4 or I occupancy, including:

Buildings that do not contain more than two dwelling units
Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours
Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours
Congregate living facilities ~~with 16 or fewer persons~~ (nontransient) accommodating 16 or fewer occupants
Boarding house
Convents
Dormitories
Fraternities
Monastaries
Sororities
Congregate living facilities (transient) accommodating 10 or fewer occupants
Bed and breakfast
Boarding house

Adult care and child care facilities that are within a single-family home are permitted to comply with the International Residential Code

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the International Residential Code provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.8.

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

CONGREGATE LIVING FACILITY: A building or portion of a building ~~or part thereof~~ that contains sleeping units where residents share bathroom and/or kitchen facilities. Congregate living facilities including, but not limited to, bed and breakfast homes, boarding houses, convents, monasteries, dormitories, fraternities and sororities.

Boarding house. ~~A building~~ A type of congregate living facility arranged or used for lodging for compensation, with or without meals, and not occupied as a ~~single-family~~ dwelling unit.

Dormitory. ~~A space in a building~~ A type of congregate living facility where group sleeping accommodations are provided in one room, or in a series of closely associated rooms, for persons not members of the same family group, under joint occupancy and single management, as in college dormitories, ~~or fraternity houses~~ fraternities and sororities.

Reason: When congregate living facility was added to the code, the proponent explained that this was a generic category of which many of the codes existing categories were subsets. This change simply carries through with that original concept. In addition, the list of occupancies with the R category have become muddled with some uses listed and some explained in paragraphs below the list. Finally there is confusion resulting from the paragraph at the end of the R-1 and R-2 lists which says that certain congregate living facilities are 'permitted to comply with the construction requirements of R-3, but doesn't say there are R-3's, This would seem to imply that they are to be categorized as R1 or R2, but everything else about them will be R-3. That makes no sense.

Finally this eliminates the inconsistent placement of transient and nontransient after various uses. The charging language for each group says either transient or permanent (non-transient), the lists afterward don't need to, with one exception. Because the R-3 can have both transient and non-transient congregate living facilities, that distinction must be provided.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RICE-G1-310.2.doc

G27–09/10
310.1 (IFC [B] 202)

Proponent: Maureen Traxler, City of Seattle, WA, Seattle Dept of Planning & Development

Revise as follows:

310.1 (IFC [B] 202) Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code* in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing *sleeping units* where the occupants are primarily transient in nature, including:

Boarding houses (transient) with more than 10 occupants
Congregate living facilities (transient) with more than 10 occupants
Hotels (transient)
Motels (transient)

~~*Congregate living facilities* (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.~~

R-2 Residential occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (nontransient) with more than 16 occupants
Congregate living facilities (nontransient) with more than 16 occupants
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Vacation timeshare properties

~~*Congregate living facilities* with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.~~

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two *dwelling units*.
Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Boarding houses (nontransient) with 16 or fewer occupants
Boarding houses (transient) with 10 or fewer occupants
Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Congregate living facilities (nontransient) with 16 or fewer ~~persons~~ occupants.
Congregate living facilities (transient) with 10 or fewer occupants.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the *International Residential Code* provided the building is protected by an *automatic sprinkler system* installed in accordance with Section 903.2.8.

Reason: Boarding houses and congregate living facilities as defined in Section 310 are very similar and should be classified the same. Current code language found under the R-1 and R-2 classifications indicates when congregate living facilities shall comply with the construction requirements for R-3, but this leaves the question of how they shall be classified. This proposal clarifies how congregate living facilities and boarding houses shall be classified, based on the transient and nontransient occupant load thresholds.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: TRAXLER-G3-310.1.doc

G28–09/10

310.1(IFC [B] 202), 310.2; IRC R101.2, R202

Proponent: Maureen Traxler, City of Seattle, Seattle Dept of Planning & Development

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC GENERAL

1. Revise as follows:

310.1 (IFC [B] 202) Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code* in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing *sleeping units* where the occupants are primarily transient in nature, including:

Boarding houses (transient)
Hotels (transient)
<u>Lodging houses with more than 5 guest rooms</u>
Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (nontransient)
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Vacation timeshare properties

Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two *dwelling units*.
Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Congregate living facilities with 16 or fewer persons.
Lodging houses with 5 or fewer guest rooms

Adult care and child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.
Lodging houses with five or fewer guest rooms are permitted to comply with the *International Residential Code*.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the *International Residential Code* provided the building is protected by an *automatic sprinkler system* installed in accordance with Section 903.2.7.

2. Add new definitions as follows:

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

GUEST ROOM. Any room or rooms used or intended to be used by one or more guests for living or sleeping purposes.

LODGING HOUSE. A dwelling occupied as a single-family unit where rent is paid for guest rooms.

PART II – IRC BUILDING AND ENERGY

1. Revise as follows:

R101.2 Scope. The provisions of the *International Residential Code for One- and Two-family Dwellings* shall apply to the construction, *alteration*, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above *grade plane* in height with a separate means of egress and their *accessory structures*.

Exceptions:

1. Live/work units complying with the requirements of Section 419 of the *International Building Code* shall be permitted to be built as one- and two-family *dwellings* or townhouses. Fire suppression required by Section 419.5 of the *International Building Code* when constructed under the *International Residential Code for One- and Two-family Dwellings* shall conform to Section 903.3.1.3 of the *International Building Code*.
2. Lodging houses with five or fewer guest rooms shall be permitted to be constructed in accordance with the *International Residential Code for One- and Two-family Dwellings.*

2. Add new definitions as follows:

SECTION R202
DEFINITIONS

GUEST ROOM is any room or rooms used or intended to be used by one or more guests for living or sleeping purposes.

LODGING HOUSE is a one-family dwelling where one or more occupants are primarily permanent in nature, and rent is paid for guest rooms.

Reason: This proposal allows small bed and breakfasts to be constructed according to the International Residential Code. Currently, the IRC does not address whether nightly rentals are allowed, so jurisdictions across the country are applying the code differently. We chose to add a definition of "lodging house" to generally encompass rental lodging within dwelling units, distinct from hotels and boarding houses which are "not occupied as a single-family unit." We are proposing a general term rather than the more common term "bed and breakfast" partly because that term would imply that the building official would monitor what meals were served at the lodging.

Cost Impact: The code change proposal will not increase the cost of construction.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: TRAXLER-G10-310.DOC

G29–09/10
310.1 (IFC [B] 202), 310.2

Proponent: John England, MCO, England Enterprises Inc., representing Cities of Beaufort and Hardeeville, SC

1. Revise as follows:

310.1 (IFC [B] 202) Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code* in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing *sleeping units* where the occupants are primarily transient in nature, including:

Boarding houses (transient)
Hotels (transient)
Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (nontransient)
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
~~Vacation timeshare properties~~

Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two *dwelling units*.
Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Congregate living facilities with 16 or fewer persons. Adult care and child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the *International Residential Code* provided the building is protected by an *automatic sprinkler system* installed in accordance with Section 903.2.8.

R-5 Residential occupancies in which the building and common area are owned by an association. Dwelling units are individually owned either wholly or as part of a time share agreement.

Condominium, residential
Vacation timeshare properties

Group R-5 occupancies shall meet the requirements for construction as defined for Group R-2, except as otherwise provided for in this code.

2. Add new definitions as follows:

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

CONDOMINIUM, RESIDENTIAL. A building, including common areas, consisting of two or more dwelling units which is owned by a common association and in which each dwelling unit is individually owned.

VACATION TIMESHARE PROPERTIES. A building, including common areas, which are owned by a homeowners association in which each dwelling units have multiple owners and the dwelling units can be used on a transient basis by their owners or rented out to nonowners on a daily, weekly or monthly basis.

Reason: Special provisions need to be taken for condos and timeshares since the associations owns the buildings.

When Apartment building (R-2) or Hotels (R-1) are converted to condo's or timeshares the occupancy classification of the building changes requiring the owner to bring it up to code before selling the units.

This is a life safety issue because many buildings will now have to be sprinkled and accessibility issues will be corrected when the conversion occurs.

As the code progresses other changes may change specific requirements for Group R-5.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ENGLAND-G1-310.1.doc

G30–09/10
310.2

Proponent: Robert J. Heil, Code Inspections, Inc., representing Pennsylvania Association of Building Code Officials, Inc.

Revise as follows:

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in the code, have the meanings shown herein.

CONGREGATE LIVING FACILITIES. A building or part of thereof that contains sleeping units and is used as a group housing setting including, but not limited to dormitories, fraternities, sororities and boarding houses, where residents share bathroom and/or kitchen facilities.

Reason: Provides a clearer understanding of what type of housing a congregate living facility is.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEIL-G1-310.2

G31–09/10

402.2.1 (New), 402.3, 402.4, 402.4.1 402.4.1.1, 402.4.1.4, 402.4.3, 402.4.4, 402.4.5, 402.5.1, 402.5.2, 402.6, 402.6.1, 402.7.1, 402.7.3, 402.8, 402.9, 402.11, 402.12, 402.12.2, 402.12.3, 402.14, 402.15, 402.16, 905.3.3, 905.4 (IFC 905.3.3, 905.4).

Proponent: Sarah A. Rice, CBO, representing self

1. Add new text as follows:

402.2.1 Open mall building perimeter line. For the purpose of this code, a perimeter line shall be established. The perimeter line shall encircle all buildings and structures which comprise the open mall building, and shall encompass any open-air interior walkways, open-air courtyards or similar open-air spaces. The perimeter line shall define the extent of the open mall building. Anchor buildings shall be outside of the perimeter line and are not considered as part of the open mall building.

2. Revise text as follows:

402.3 Lease plan. Each ~~*covered mall building*~~ owner of a covered mall building or of an open mall building shall provide both the building and fire departments with a lease plan showing the location of each occupancy and its exits after the certificate of occupancy has been issued. No modifications or changes in occupancy or use shall be made from that shown on the lease plan without prior approval of the *building official*.

402.4 Means of egress. ~~Each tenant space and the~~ *Covered mall buildings, open mall buildings and each tenant space within a mall building* shall be provided with *means of egress* as required by this section and this code. Where there is a conflict between the requirements of this code and the requirements of ~~this section~~ Sections 402.4.1 through 402.4.6, the requirements of ~~this section~~ Sections 402.4.1 through 402.4.6 shall apply.

402.4.1 Determination of occupant load. The *occupant load* permitted in any individual tenant space in a *covered or open mall building* shall be determined as required by this code. *Means of egress* requirements for individual tenant spaces shall be based on the *occupant load* thus determined.

402.4.1.1 Occupant formula. In determining required *means of egress* of the mall, the number of occupants for whom *means of egress* are to be provided shall be based on gross leasable area of the *covered or open mall building* (excluding *anchor buildings*) and the *occupant load* factor as determined by the following equation.

$OLF = (0.00007)(GLA) + 25$ **(Equation 4-1)**

where:
OLF = The *occupant load* factor (square feet per person).
GLA = The gross leasable area (square feet).

Exception: Tenant spaces attached to a *covered or open mall building* but with a *means of egress* system that is totally independent of the open mall of an open mall building or of ~~the~~ a *covered mall building* shall not be considered as gross leasable area for determining the required *means of egress* for the *covered mall building*.

402.4.1.2 OLF range. (No change to current text)

402.4.1.3 Anchor buildings. (No change to current text)

402.4.1.4 Food courts. The *occupant load* of a food court shall be determined in accordance with Section 1004. For the purposes of determining the *means of egress* requirements for the mall, the food court *occupant load* shall be added to the *occupant load* of the *covered or open mall building* as calculated above.

402.4.2 Number of means of egress. (No change to current text)

402.4.3 Arrangements of means of egress. Assembly occupancies with an *occupant load* of 500 or more within a covered mall building shall be so located in the *covered mall building* that their entrance will be immediately adjacent to a principal entrance to the mall and shall have not less than one-half of their required *means of egress* opening directly to the exterior of the *covered mall building*. Assembly occupancies with an occupant load of 300 or more within an open mall building shall be permitted to have their main exit open to the open mall.

402.4.3.1 Anchor building means of egress. (No change to current text)

402.4.4 Distance to exits. Within each individual tenant space in a *covered* or open *mall building*, the maximum distance of travel from any point to an *exit* or entrance to the mall shall not exceed 200 feet (60 960 mm).

The maximum distance of travel from any point within a mall of a covered mall building to an *exit* shall not exceed 200 feet (60 960 mm). The maximum distance of travel from any point within an open mall to the perimeter line of the open mall building shall not exceed 200 feet.

402.4.5 Access to exits. Where more than one *exit* is required, they shall be so arranged that it is possible to travel in either direction from any point in a mall of a covered mall building to separate *exits* or from any point in an open mall to two separate locations on the perimeter line of an open mall building. The minimum width of an *exit passageway* or *corridor* from a mall shall be 66 inches (1676 mm).

Exception: Dead ends not exceeding a length equal to twice the width of the mall measured at the narrowest location within the dead-end portion of the mall.

402.4.5.1 Exit passageways. (No change to current text)

402.4.6 Service areas fronting on exit passageways. (No change to current text)

402.5 Mall width. For the purpose of providing required egress, malls are permitted to be considered as *corridors* but need not comply with the requirements of Section 1005.1 of this code where the width of the mall is as specified in this section.

402.5.1 Minimum width The ~~minimum~~ aggregate clear egress width of the mall in either a covered or open mall building shall be a minimum of 20 feet (6096 mm). The mall width shall be sufficient to accommodate the *occupant load* served. ~~There shall be a minimum of 10 feet (3048 mm) clear exit width~~ No portion of the minimum required aggregate egress width of shall be less than 10 feet measured to a height of 8 feet (2438 mm) between any projection of a tenant space bordering the mall and the nearest kiosk, vending machine, bench, display opening, food court or other obstruction to *means of egress* travel.

402.6 ~~**402.5.2 Minimum width**~~ **Open malls.** Floor assemblies in, and roof assemblies over the mall of an open mall buildings shall be open for a minimum of 20 feet, measured perpendicular from the face of the tenant spaces on the lowest level, from edge of balcony to edge of balcony on upper floors or from edge of roof line to edge of roof line. The opening, or the unroofed area shall extend from the lowest/grade level of the mall to the sky above the roof. Balconies on upper levels of the mall shall not project into the required width. ~~The minimum floor and roof opening width above grade shall be 20 feet (9096 mm) in open malls.~~

Exception: Interior pedestrian bridges connecting balconies shall be permitted in the required width.

~~**402.6**~~ **402.7 Types of construction.** The building area of any *covered mall* or open *building*, including *anchor buildings*, of Types I, II, III and IV construction, shall not be limited provided the *covered mall building* or open mall building, and ~~attached~~ adjoining *anchor buildings* and parking garages are surrounded on all sides by a permanent open space of not less than 60 feet (18 288 mm) and the *anchor buildings* do not exceed three *stories above grade plane*. For open mall buildings, the width of the permanent open space shall be measured from the perimeter line established by Section 402.2.1.

The type of construction allowable building height and building area of *anchor buildings* greater than three *stories above grade plane* shall comply with Section 503, as modified by Sections 504 and 506. The construction type of *open parking garages* and enclosed parking garages shall comply with Sections 406.3 and 406.4, respectively.

~~**402.6.1**~~ **402.7.1 Reduced open space.** The permanent open space of 60 feet (18 288 mm) shall be permitted to be reduced to not less than 40 feet (12 192 mm), provided the following requirements are met:

1. The reduced open space shall not be allowed for more than 75 percent of the perimeter of the *covered* or open *mall building* and *anchor buildings*.
2. The *exterior wall* facing the reduced open space shall have a minimum *fire-resistance rating* of 3 hours.
3. Openings in the *exterior wall* facing the reduced open space shall have opening protectives with a minimum *fire protection rating* of 3 hours.
4. Group E, H, I or R occupancies are not within the *covered* or open *mall building* or *anchor stores*.

~~402.7~~ **402.8 Fire-resistance-rated separation.** Fire-resistance-rated separation is not required between tenant spaces and the mall. Fire-resistance-rated separation is not required between a food court and adjacent tenant spaces or the mall.

~~402.7.1~~ **402.8.1 Attached garage.** An attached garage for the storage of passenger vehicles having a capacity of not more than nine persons and *open parking garages* shall be considered as a separate building where it is separated from the *covered or open mall building* by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 712, or both.

> **Exception:** Where an *open parking garage* or enclosed parking garage is separated from the *covered or open mall building* or *anchor building* a distance greater than 10 feet (3048 mm), the provisions of Table 602 shall apply. Pedestrian walkways and tunnels that attach the *open parking garage* or enclosed parking garage to the *covered or open mall building* or *anchor building* shall be constructed in accordance with Section 3104.

~~402.7.2~~ **402.8.2 Tenant separations. (**No change to current text)

~~402.7.3~~ **402.8.3 Anchor building separation.** An *anchor building* shall be separated from the *covered or open mall building* by *fire walls* complying with Section 706.

> **Exceptions:**
>
> 1. *Anchor buildings* of not more than three *stories above grade plane* that have an occupancy classification the same as that permitted for tenants of the ~~*covered*~~ *mall building* shall be separated by 2-hour fire-resistive *fire barriers* complying with Section 707.
> 2. The exterior walls of anchor buildings separated from an open mall building by an open mall shall comply with Table 602.

~~402.7.3.1~~ **402.8.3.1 Openings between anchor building and mall. (**No change to current text)

~~402.8~~ **402.9 Interior finish.** *Interior wall* and *ceiling finishes* within the mall of a covered mall and within the *exits* of covered or open mall buildings shall have a minimum *flame spread index* and smoke-developed index of Class B in accordance with Chapter 8. *Interior floor finishes* shall meet the requirements of Section 804.

[F] ~~402.9~~ **402.10 Automatic sprinkler system.** ~~The~~ *Covered and open mall* ~~*building*~~ *buildings* and buildings connected shall be ~~equipped~~ protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, which shall comply with the all of the following:

1. The *automatic sprinkler system* shall be complete and operative throughout occupied space in the ~~*covered*~~ *mall building* prior to occupancy of any of the tenant spaces. Unoccupied tenant spaces shall be similarly protected unless provided with *approved* alternative protection.
2. Sprinkler protection for the mall of a covered mall building shall be independent from that provided for tenant spaces or ~~anchors~~ anchor buildings.
3. Sprinkler protection for the tenant spaces of an open mall building shall be independent from that provided for anchor buildings.
4. Sprinkler protection shall be provided beneath exterior circulation balconies located adjacent to an open mall.
5. Where tenant spaces are supplied by the same system, they shall be independently controlled.

   Exception: An *automatic sprinkler system* shall not be required in spaces or areas of *open parking garages* separated from the covered or open mall in accordance with Section 402.7.1 and constructed in accordance with Section 406.3.

~~402.9.1~~ **[F] 402.11 Standpipe system. (**No change to current text)

~~402.10~~ **402.12 Smoke control. (**No change to current text)

~~402.11~~ **402.13 Kiosks.** Kiosks and similar structures (temporary or permanent) located within the mall of a covered mall building or within the perimeter line of an open mall building shall meet the following requirements:

1. Combustible kiosks or other structures shall not be located within ~~the~~ a covered or open mall unless constructed of any of the following materials:

(Text not shown remains unchanged)

~~402.12~~ **402.14 Children's playground structures.** Where located within the mall of a covered mall or within the perimeter line of an open mall building, structures intended as children's playgrounds that exceed 10 feet (3048 mm) in height and 150 square feet (14 m^2) in area shall comply with Sections 402.12.1 through 402.12.4.

~~402.12.1~~ **402.14.1 Materials. (**No change to current text)

~~402.12.2~~ **402.14.2 Fire protection.** Children's playground structures located within ~~the~~ a mall or open mall shall be provided with the same level of *approved* fire suppression and detection devices required for kiosks and similar structures.

~~402.12.3~~ **402.14.3 Separation.** Children's playground structures shall have a minimum horizontal separation from other structures within ~~the~~ a mall or open mall of 20 feet (6090 mm).

~~402.12.4~~ **402.14.4 Area limits. (**No change to current text)

~~402.13~~ **402.15 Security grilles and doors. (**No change to current text)

~~402.14~~ **[F] 402.16 Standby power.** *Covered mall buildings* exceeding 50,000 square feet (4645 m^2) and open mall buildings exceeding 50,000 square feet within the established perimeter line shall be provided with standby power systems that are capable of operating the emergency voice/alarm communication system.

~~402.15~~ **[F] 402.17 Emergency voice/alarm communication system.** ~~*Covered mall buildings* exceeding 50,000 square feet (4645 m^2) in total floor area shall be provided with an emergency voice/alarm communication system.~~ Where the total floor area exceeds 50,000 square feet within either a covered mall building or within the perimeter line of an open mall building, an emergency voice/alarm communication system shall be provided.

Emergency voice/alarm communication systems serving a mall, required or otherwise, shall be accessible to the fire department. The system shall be provided in accordance with Section 907.5.2.2.

~~402.16~~ **402.18 Plastic signs.** Plastic signs affixed to the storefront of any tenant space facing ~~the~~ a mall or open mall shall be limited as specified in Sections ~~402.16.1 through 402.16.5.2~~ 402.17.1 through 402.17.5.2.

(Text not shown remains unchanged)

~~402.17~~ **[F] 402.19 Fire department access to equipment. (**No change to current text)

905.3.3 (IFC 905.3.3) Covered and open mall buildings. ~~A~~ *Covered mall ~~building~~ and open mall buildings* shall be equipped throughout with a standpipe system where required by Section 905.3.1. ~~*Covered*~~ *Mall buildings* not required to be equipped with a standpipe system by Section 905.3.1 shall be equipped with Class I hose connections connected to the *automatic sprinkler system* sized to deliver water at 250 gallons per minute (946.4 L/min) at the most hydraulically remote hose connection while concurrently supplying the *automatic sprinkler system* demand. The standpipe system shall be designed not to exceed a 50 pounds per square inch (psi) (345 kPa) residual pressure loss with a flow of 250 gallons per minute (946.4 L/min) from the fire department connection to the hydraulically most remote hose connection. Hose connections shall be provided at each of the following locations:

1. Within the mall at the entrance to each *exit* passageway or *corridor*.
2. At each floor-level landing within enclosed stairways opening directly on the mall.
3. At exterior public entrances to the mall of a covered mall building
4. At public entrances at the perimeter line of an open mall building.
5. At other locations as necessary so that the distance to reach all portions of a tenant space does not exceed 200 feet (60 960 mm) from a hose connection.

[F] 905.4 (IFC 905.4) Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. through 3. **(**No change to current text)
4. In covered and open mall buildings, adjacent to each exterior public entrance to ~~the~~ a covered mall, adjacent to each public entrance at the perimeter line of an open mall and adjacent to each entrance from an *exit* passageway or *exit corridor* to the covered mall or an open mall.
5. and 6. **(**No change to current text)

Reason: The 2009 IBC was amended to allow an open mall to be built under the Covered Mall provisions of Section 402. However, the change was minimal in that it defined an open mall and open mall building and provided some specificity about the openness of the mall from the ground to the sky, but it did not address how each of the requirements within Section 402 would be applied to an open mall situation. For example, measuring the travel distance from a tenant space within a mall to an exit is unclear when the whole mall is 'exterior' to the buildings. This proposal goes through each section and revises each to clarify application to open malls. In general this required adding 'and open mall' or 'and open mall building' in various locations. Other locations the existing text stating application to a 'mall' was sufficient to allow application to both covered and open mall situations. Without providing revisions of this sort, the application of Section 402 will result in inconsistent interpretation from designer to designer and from jurisdiction to jurisdiction.

The intent of the 2009 change was to allow an open mall building to enjoy all of the benefits of being considered one unlimited area building with various tenants and occupancies. The key difference is that instead of the mall being covered, it is open to the sky. One then can begin wondering if the mall is 'exterior' to the building and therefore needs to be treated as exit discharge and the walls of the tenant spaces as exterior walls facing an assumed property line, or is it simply a covered mall building without a roof. The balance of this proposal takes the latter position, that the open mall building is simply a covered mall building without a roof.

Sec. 402.2.1. Only one new concept is established by the proposal – 'open mall building perimiter line'. The premise is that the designer establishes a boundary between what is considered to be part of the open mall building and what is outside of the building. This allows determination of the equivalent of exit travel distance for an exterior mall similar to a covered mall without there being a physical separation between the 'mall' and what is outside of the mall.

Sec. 402.3. Editorially revised to address owners of both types of malls and the required lease plan.

Sec. 402.4. Editorially revised to make it clear the egress provisions apply to covered and open malls. "This section' is replaced in two places with the specific section numbers for clarity of reference.

Sec. 402.4.1. Editorially revised in 3 subsections to clarify application of occupant load determinations.

Sec. 402.4.3. This is substantive change for open malls compared to covered mall buildings. Currently assembly occupancies with an occupant load over 500 needs to be located so that the entrance to the occupancy is adjacent to the mall entrance and 50% of the egress capacity goes directly outdoors. This proposal limits the application of this existing section to covered mall buildings. It then goes on to permit the open mall to be used as the discharge location for a main exit for assembly spaces over 300. There are many examples of this arrangement around the country including the theaters on the Citywalk open mall at Universal City in the Los Angeles area.

Sec.402.4.4 and 4.5. These sections use the open mall perimiter line as a substitute for the exterior wall of a covered mall to determine when means of egress transitions from 'within' the mall to 'outside' of the mall.

Sec. 402.5.1 The proposal makes section 402.5.1 generic for both types of malls. There is no intent to make a substantive change here.

Sec. 402.5.2. The existing code is currently in the wrong place –the requirement for 20 foot open is not related to egress but rather to the need for floor and roof assemblies in the mall portion of an open mall building to be open. There is no intent to make a substantive change here only to move to be a separate unique criteria.

Sec. 402.6. Since the concept of an open mall building is that there are many detached buildings, this provision of indicating the 60 foot open perimeter was around the attached buildings needed to be fixed to address that the anchor buildings next to an open mall building may not be physically attached.

Sec. 402.7.3. In an open mall building design, it is likely that the anchor buildings won't actually be attached. Therefore neither the fire wall nor fire barrier concept is appropriate. Therefore an exception is provided to treat such walls as exterior walls. But Section 402.7.3.1 will still apply and the openings in the wall need not be rated.

Sec. 402.8. This section currently requires wall and ceilings of the covered mall to meet specified flame spread of interior finishes. This applies to the mall itself. Tenant spaces need to comply with Chapter 8 independently. However, the walls of the open mall are not interior walls but actually exterior walls, which makes application of Chapter 8 inappropriate in most cases. The added language would still apply to any enclosed exits in an open mall building as well as the exits in a covered mall building.

Sec. 402.9. Since the open mall is open, without roof, there would be no requirement to provide sprinkler protection in the 'mall'. However, this proposal would still require sprinkler protection under exterior balconies which are providing circulation in the open mall. The concept here is there could be a multilevel open mall building with pedestrian walkways paralleling the front of the upper tenant spaces or bridges crossing the open mall. This would require sprinkler protection under such walkways.

Sec. 402.9.1 is changed to 402.10. This section refers to the standpipe requirements in Chapter 9. It is not a subset of sprinklers as is implied by the current numbering. This proposal moves it to its own equal section. Section 402 could use a reformatting of the sections similar to that provided to the 403 Highrise provisions in the 2009 code.

Sec. 402.11 Kiosks and 402.12 Children's play structures. This proposal treats those within the established perimiter line of an open mall building as if they were 'within' the mall.

Sec. 402.14 Standby power and 402.15 Emergency Communication. These would use the open mall building perimiter line to determine when the 50,000 square foot threshold was reached.

Sec. 402.16 Signs. The consistent approach of this proposal is to treat the 'open mall' as if it were interior facades along a mall which will have lots of occupants that are in restricted pathways until there get outside of the perimiter line. Therefore the limitation on signs should apply to those facing the open mall as well.

Sec. 905.3.3 and 905.4. These sections state the requirement for standpipes in a mall building and requires placement near the exits. As the open mall doesn't have 'exits' per se between the mall and the outside, the building perimiter line is used in lieu of the exits to specify the standpipe locations.

Other locations. The term 'covered mall building' is also used in the following sections of the IBC: 507.12, 709.1, 709.4, 716.5.4, Table 903.2.11.6, 907.2.7, 907.2.14, 2702.2.14, 2902.3.2, 2902.3.3 and 3412.6.19. In most of these locations the code should be editorially revised for consistency with this proposal. In most of these sections it will be sufficient to change 'covered mall building to 'covered and open mall buildings'.

Cost Impact: The code change proposal to the extent that it clarifies the application of the code in various situations may result in an increase the cost of construction where otherwise a designer or building official may have not thought that a provision of Section 402 applied.

Analysis: If this change is approved, staff can provide editorial revisions to the balance of the code and to the other I-Codes to be consistent with the intent of this proposal.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RICE-G6-503.1.4.doc

G32–09/10

402.1, 402.6, 402.6.1, 402.6.2 (New), 402.6.3 (New), 402.6.4 (New)

Proponent: Sarah A. Rice, CBO, representing self

Revise text as follows:

402.1 Scope. The provisions of this section shall apply to buildings or structures defined herein as covered mall or open mall buildings ~~not exceeding three floor levels at any point nor more than three stories above grade plane~~. Except as specifically required by this section, covered mall buildings shall meet applicable provisions of this code.

Exceptions:

1. Foyers and lobbies of Groups B, R-1 and R-2 are not required to comply with this section.
2. Buildings need not comply with the provisions of this section when they totally comply with other applicable provisions of this code.

~~**402.6 Types of construction.** The area of any covered mall building, including anchor buildings, of Type I, II, III and IV construction, shall not be limited provided the covered mall building and attached anchor buildings and parking garages are surrounded on all sides by a permanent open space of not less than 60 feet (18 288 mm) and the anchor buildings do not exceed three stories in height. The allowable height and area of anchor buildings greater than three stores in height shall comply with Section 503, as modified by Sections 504 and 506. The construction type of open parking garages and enclosed parking garages shall comply with Sections 406.3 and 406.4, respectively.~~
Construction limitations. Covered or open mall buildings, anchor buildings and parking garages shall comply with Sections 402.6.1 through 402.6.4, as applicable.

402.6.1 Height limits - covered or open mall buildings. Covered or open mall buildings shall not exceed three stories at any point, nor exceed three stories above grade plane.

402.6.2 Type of construction – covered or open mall buildings. Covered and open mall buildings shall be Type I, II, III or IV construction. The building height for a covered or open mall building shall be as specified in Table 503 as modified by Section 504. The building area shall be as specified in Table 503 as modified by Section 506.

Exception. The building area limits of Table 503 shall not apply to covered or open mall buildings when the following are met:

1. The permanent open space specified in Section 402.6.4 shall be provided around the covered or open mall building, all adjoining anchor buildings and parking garages.
2. Any adjoining anchor buildings shall not exceed three stories in height.

402.6.3 Type of construction – anchor buildings and parking garages. The construction type for anchor buildings and parking garages shall be in accordance with Section 503, as modified by Sections 504 and 506.

Exceptions.

1. The building area limits of Table 503 shall not apply to anchor buildings when the building is three stories or less above grade plane, and a permanent open space specified in Section 402.6.4 is provided around the anchor building, the adjoining covered or open mall building and all parking garages.
2. The building height and area limits of Table 503 shall not apply to open parking garages and enclosed parking garages when they comply with Sections 406.3 and 406.4, respectively, and are separated from the covered or open mall building in accordance with Section 402.7.1.

402.6.4 Permanent open space. Where required, covered mall building, and any adjoining anchor buildings and parking garages shall be surrounded on all sides by a permanent open space of not less than 60 feet (18 288 mm).

~~**402.6.1 Reduced open space.**~~ **Exception:** The permanent open space of 60 feet (18 288 mm) shall be permitted to be reduced to not less than 40 feet (12 192 mm), provided the following requirements are met:

1. The reduced open space shall not be allowed for more than 75 percent of the perimeter of the covered mall building and anchor buildings.

2. The exterior wall facing the reduced open space shall have a minimum fire-resistance rating of 3 hours.
3. Openings in the exterior wall facing the reduced open space shall have opening protectives with a minimum fire protection rating of 3 hours.
4. Group E, H, I, or R occupancies are not within the covered mall building or anchor stores.

Reason: This proposal is intended to add clarity to the size and type of construction provisions for covered mall buildings. It essentially does 3 things:

1) Takes a requirement out of the "scoping" section (402.1) and places into the body of the section in new Section 402.6.1. The language is also changed from "not exceeding three floor levels" to "not have more than three stories." This is done to address when there are mezzanines within a tenant space. The current language could be interpreted to say a small mezzanine within a tenant space is a "floor level" and thus count towards the overall height and configuration of the covered or open mall building.
2) Revises how the requirements in 402.6 are presented – NOT changing any of the requirements. The title of section is "Type of Construction" but the content as currently written is not really about type of construction but rather limits on size IF a specific type of construction is used. The proposed language seeks to make it clear what types of construction are allowed for covered and open malls, anchor buildings and parking garages.
3) Change to use the term "adjoin" vs "attach when talking about anchor buildings and garages, as in the case where there is an "open mall building" the anchor stores may not physically be "attached" to the other structures.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RICE-G7a 402.1.doc

G33–09/10
402.2, 402.4.6

Proponent: Gene Boecker, Code Consultants, Inc.

1. Add new definition as follows:

402.2 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

REMOTE STORAGE ROOM. A storage room located in a mall building which is not part of, nor attached to, a specific tenant space.

2. Revise as follows:

402.4.6 Service areas fronting on exit passageways. Mechanical rooms, electrical rooms, building service areas, ~~and~~ service elevators, and remote storage rooms are permitted to open directly into exit passageways, provided the exit passageway is separated from such rooms with not less than 1-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. The minimum fire protection rating of openings in the fire barrier shall be 1 hour. A fire partition in accordance with Section 709 shall be provided between remote storage rooms, which are accessed from an exit passageway, and tenant spaces and other remote storage rooms.

Reason: Reason: In the development of a covered mall project, it is necessary to locate building service rooms in an area that is accessible at all times to mall personnel. The Code acknowledges this need and specifically allows these typically unoccupied areas to open onto exit passageways in covered malls. The list of "service areas" seems to indicate utility-type rooms and not "storage rooms".

Due to leasing arrangements, there may be instances where vacant leasable space is available at the rear of tenants, adjacent to exit passageways. These vacant spaces can be leased to tenants throughout the covered mall building that may be in need of additional storage space. These areas are also used by mall management for storage rooms of holiday decorations and other miscellaneous mall storage.

The current code text already establishes the fire rated construction associated with the exit passageway wall assemblies. The proposed last sentence will require a 1-hour fire partition between the storage room and adjacent tenant spaces.

This proposal is consistent with that required for building service rooms that open onto exit passageways.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BOECKER-G2-402.4.6

G34–09/10

402.6, 406.1.1, 406.1.2, 406.3.5, 406.3.5.1, Table 406.3.5, 406.3.6, 406.4.1, Table 503, 503.1, 506, 507, 508, 509.1, 509.2, 509.3, 509.7

Proponent: David S. Collins, FAIA, The Preview Group, Inc., representing The American Institute of Architects

1. Revise as follows:

SECTION 402
COVERED MALL AND OPEN MALL BUILDINGS

402.6 Type of Construction. ~~The area of any covered mall building, including anchor buildings. of Types, I, II, III and IV construction shall not be limited provided the covered mall building and attached anchor buildings and parking garages are surrounded on all sides by a permanent open space of not less than 60 feet and the anchor buildings do not exceed three stories above grade plane~~. The allowable height ~~and area~~ of anchor buildings greater than three stories above grade plane shall comply with Section 503, as modified by Section~~s~~ 504 ~~and 506~~. The construction type of open parking garages and enclose parking garages shall comply with Sections 406.3 and 406.4, respectively

SECTION 406
MOTOR-VEHICLE-RELATED OCCUPANCIES

406.1.1 Classification. Buildings or parts of buildings classified as Group U occupancies because of the use or character of the occupancy shall not exceed ~~1,000 square feet (93 m2) in area or~~ one *story* in height ~~except as provided in Section 406.1.2~~. Any building or portion thereof that exceeds the limitations specified in this section shall be classified in the occupancy group other than Group U that it most nearly resembles.

~~**406.1.2 Area increase.** Group U occupancies used for the storage of private or pleasure-type motor vehicles where no repair work is completed or fuel is dispensed are permitted to be 3,000 square feet (279 m2) when the following provisions are met:~~

~~1. For a mixed occupancy building, the *exterior wall* and opening protection for the Group U portion of the building shall be as required for the major occupancy of the building. For such a mixed occupancy building, the allowable floor area of the building shall be as permitted for the major occupancy contained therein.~~
~~2. For a building containing only a Group U occupancy, the *exterior wall* shall not be required to have a *fire-resistance rating* and the area of openings shall not be limited when the *fire separation distance* is 5 feet (1524 mm) or more.~~

~~More than one 3,000-square-foot (279 m2) Group U occupancy shall be permitted to be in the same building, provided each 3,000-square-foot (279 m2) area is separated by *fire walls* complying with Section 706~~

406.3.5 ~~Area and height~~ Height. ~~Area and height~~ Height of open parking garages shall be limited as set forth in Chapter 5 for Group S-2 occupancies ~~and as further provided for in Section 508.1~~.

TABLE 406.3.5
OPEN PARKING GARAGES ~~AREA AND~~ HEIGHT

TYPE OF CONSTRUCTION	~~AREA PER TIER (square feet)~~	HEIGHT (in tiers)		
		Ramp access	Mechanical access	
			Automatic sprinkler system	
			No	Yes
IA	~~Unlimited~~	Unlimited	Unlimited	Unlimited
IB	~~Unlimited~~	12 tiers	12 tiers	18 tiers
IIA	~~50,000~~	10 tiers	10 tiers	15 tiers
IIB	~~50,000~~	8 tiers	8 tiers	12 tiers
IV	~~50,000~~	4 tiers	4 tiers	4 tiers

For SI: 1 square foot = 0.0929 m^2.

406.3.5.1 Single use. When the open parking garage is used exclusively for the parking or storage of private motor vehicles, with no other uses in the building, the ~~area and~~ height shall be permitted to comply with Table 406.3.5, along with increases allowed by Section 406.3.6.

~~**Exception:** The grade-level tier is permitted to contain an office, waiting and toilet rooms having a total combined area of not more than 1,000 square feet (93 m2). Such area need not be separated from the *open parking garage*.~~

~~In *open parking garages* having a spiral or sloping floor, the horizontal projection of the structure at any cross section shall not exceed the allowable area per parking tier.~~ In the case of an *open parking garage* having a continuous spiral floor, each 9 feet 6 inches (2896 mm) of height, or portion thereof, shall be considered a tier.

The clear height of a parking tier shall not be less than 7 feet (2134 mm), except that a lower clear height is permitted in mechanical-access *open parking garages* where *approved* by the *building official*.

406.3.6 ~~Area and height~~ Height increases. The allowable ~~area and~~ height of open parking garages shall be increased in accordance with the provisions of this section. Garages with sides open on three-fourths of the building's perimeter are permitted to be increased ~~by 25 percent in area and~~ one tier in height. Garages with sides open around the entire building's perimeter are permitted to be increased ~~by 50 percent in area and~~ one tier in height. For a side to be considered open under the above provisions, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier.

~~Allowable tier areas in Table 406.3.5 shall be increased for open parking garages constructed to heights less than the table maximum. The gross tier area of the garage shall not exceed that permitted for the higher structure. At least three sides of each such larger tier shall have continuous horizontal openings not less than 30 inches (762 mm) in clear height extending for at least 80 percent of the length of the sides and no part of such larger tier shall be more than 200 feet (60 960 mm) horizontally from such an opening. In addition, each such opening shall face a street or yard accessible to a street with a width of at least 30 feet (9144 mm) for the full length of the opening, and standpipes shall be provided in each such tier.~~

~~*Open parking garages* of Type II construction, with all sides open, shall be unlimited in allowable area where the *building height* does not exceed 75 feet (22 860 mm). For a side to be considered open, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier. All portions of tiers shall be within 200 feet (60 960 mm) horizontally from such openings or other natural ventilation openings as defined in Section 406.3.3.1. These openings shall be permitted to be provided in *courts* with a minimum dimension of 20 feet (6096 mm) for the full width of the openings.~~

406.4.1 Heights and areas. Enclosed vehicle parking garages and portions thereof that do not meet the definition of open parking garages shall be limited to the allowable heights ~~and areas~~ specified in Table 503 as modified by Section~~s~~ 504, ~~506 and 507~~. Roof parking is permitted.

SECTION 503
GENERAL BUILDING HEIGHT ~~AND AREA LIMITATIONS~~

503.1 General. The *building height* ~~*and area*~~ shall not exceed the limits specified in Table 503 based on the type of construction as determined by Section 602 and the occupancies as determined by Section 302 except as modified hereafter. Each portion of a building separated by one or more *fire walls* complying with Section 706 shall be considered to be a separate building.

2. Delete entire Table 503 and substitute new Table as follows:

~~**TABLE 503**~~
~~**ALLOWABLE BUILDING HEIGHTS AND AREASa**~~

TABLE 503
ALLOWABLE BUILDING HEIGHTS
Building height limitations shown in feet above grade plane.

	TYPE OF CONSTRUCTION								
	Type I		Type II		Type III		Tye IV	Type V	
	A	B	A	B	A	B	HT	A	B
HEIGHT (feet)	UL	160	65	55	65	55	65	50	40

3. Delete Sections 506, 507 and 508 without substitution:

~~**SECTION 506**~~
~~**BUILDING AREA MODIFICATIONS**~~

~~**SECTION 507**~~
~~**UNLIMITED AREA BUILDINGS**~~

~~**SECTION 508**~~
~~**MIXED USE AND OCCUPANCY**~~

4. Revise as follows:

SECTION 509
SPECIAL PROVISIONS

509.1 General. The provisions in this section shall permit the use of special conditions that are exempt from, or modify, the specific requirements of this chapter regarding the allowable heights ~~and areas~~ of buildings based on the occupancy classification and type of construction, provided the special condition complies with the provisions specified in this section for such condition and other applicable requirements of this code. The provisions of Sections 509.2 through 509.8 are to be considered independent and separate from each other.

~~**509.2 Horizontal building separation allowance.** A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of fire walls, limitation of number of stories and type of construction where all of the following conditions are met:~~

~~1. The buildings are separated with a *horizontal assembly* having a minimum 3-hour *fire-resistance rating*.~~
~~2. The building below the *horizontal assembly* is no more than one *story above grade plane*.~~
~~3. The building below the *horizontal assembly* is of Type IA construction.~~
~~4. Shaft, *stairway*, ramp and escalator enclosures through the *horizontal assembly* shall have not less than a 2-hour *fire-resistance rating* with opening protectives in accordance with Section 715.4.~~

~~**Exception:** Where the enclosure walls below the *horizontal assembly* have not less than a 3-hour *fire resistance rating* with opening protectives in accordance with Section 715.4, the enclosure walls extending above the *horizontal assembly* shall be permitted to have a 1-hour *fire-resistance rating*, provided:~~

~~1. The building above the *horizontal assembly* is not required to be of Type I construction;~~
~~2. The enclosure connects less than four *stories*; and~~
~~3. The enclosure opening protectives above the *horizontal assembly* have a minimum 1-hour *fire protection rating*.~~

~~5. The building or buildings above the *horizontal assembly* shall be permitted to have multiple Group A occupancy uses, each with an *occupant load* of less than 300, or Group B, M, R or S occupancies.~~
~~6. The building below the *horizontal assembly* shall be protected throughout by an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, and shall be permitted to be any of the following occupancies:~~
~~6.1. Group S-2 parking garage used for the parking and storage of private motor vehicles;~~
~~6.2. Multiple Group A, each with an *occupant load* of less than 300;~~

~~6.3. Group B;~~
~~6.4. Group M;~~
~~6.5. Group R; and~~
~~6.6. Uses incidental to the operation of the building (including entry lobbies, mechanical rooms, storage areas and similar uses).~~

~~7. The maximum *building height* in feet (mm) shall not exceed the limits set forth in Section 503 for the building having the smaller allowable height as measured from the *grade plane*.~~

509.3 Group S-2 enclosed parking garage with Group S-2 open parking garage above. A Group S-2 enclosed parking garage with no more than one story above grade plane and located below a Group S-2 open parking garage shall be classified as a separate and distinct building for the purpose of determining the type of construction where all of the following conditions are met:

~~1. The allowable area of the building shall be such that the sum of the ratios of the actual area divided by the allowable area for each separate occupancy shall not exceed 1.~~

~~2.~~ 1. The Group S-2 enclosed parking garage is of Type I or II construction and is at least equal to the fire-resistance requirements of the Group S-2 open parking garage.

~~3~~ 2. The height and the number of tiers of the Group S-2 open parking garage shall be limited as specified in Table 406.3.5.

~~4~~ 3. The floor assembly separating the Group S-2 enclosed parking garage and Group S-2 open parking garage shall be protected as required for the floor assembly of the Group S-2 enclosed parking garage. Openings between the Group S-2 enclosed parking garage and Group S-2open parking garage, except exit openings, shall not be required to be protected.

~~5~~ 4. The Group S-2 enclosed parking garage is used exclusively for the parking or storage of private motor vehicles, but shall be permitted to contain an office, waiting room and toilet room having a total area of not more than 1,000 square feet (93 m2), and mechanical equipment rooms incidental to the operation of the building.

509.7 Open parking garage beneath Groups A, I, B,M and R. Open parking garages constructed under Groups A, I, B, M and R shall not exceed the height ~~and area~~ limitations permitted under Section 406.3. The height ~~and area~~ of the portion of the building above the open parking garage shall not exceed the limitations in Section 503 for the upper occupancy. The height, in both feet and stories, of the portion of the building above the open parking garage shall be measured from grade plane and shall include both the open parking garage and the portion of the building above the parking garage.

Revise as follows: A study group of the ICC's Codes Technology Committee worked for almost four years to examine the rationale and background for the criteria within Table 503 and to determine what needed to be corrected. The study group examined the origins of the table and the procedure used to develop it. No rational basis was identified or established for any of the values within the table. Nothing exists that correlates the performance of a building by construction type and occupancy to fire performance, life safety or property damage. NFPA's latest analysis of the available data indicates that social conditions are far more predictable of likely loss.

Codes limit the arrangement of building areas by several limitations. Means of egress travel distance limits the exposure of the building occupants, the requirements of stairs to discharge to the outside, distance of standpipes and even Appendix B in the IFC, all limit the configuration of a building. Area limits in Table 503 affect little except to provide market share for materials interests.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: COLLINS-G1-402.6.doc

G35–09/10
402.7.1

Proponent: Gene Boecker, Code Consultants, Inc.

Revise as follows:

402.7.1 Attached garage. An attached garage for the storage of passenger vehicles having a capacity of not more than nine persons and open parking garages shall be considered as separate buildings where it is separated from the covered mall building or anchor building by not less than 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both.

Exceptions:

1. Where an open parking garage or enclosed parking garage is separated from the covered mall building or anchor building ~~a distance greater than 10 feet (3048 mm)~~, the provisions of Table 602 shall apply.
2. Pedestrian walkways and tunnels, which attach the open parking garage or enclosed parking garage to the covered mall building or anchor building, shall be constructed in accordance with Section 3104.

Reason: The proposal does two things – it divides the existing large exception into separate exceptions for clarity and it deletes the reference to the 10 ft distance threshold for application of Table 602.

The section initially addresses a separation to the garage based on the assumption that it is immediately next to the covered mall building. The first exception addresses the condition where there may be a physical separation. However, the application of Table 602 should not be applicable only at a certain distance. If the physical separation is provided, then it must be addressed accordingly.

Section 3104 already addresses the construction of exterior walls (including opening protection) of buildings connected by a pedestrian walkway. The exception continues to include code language acknowledging that pedestrian walkways should comply with Section 3104. However, by combining the two sentences in one exception leads a person to think that both Table 602 and Section 3104 should apply to a pedestrian walkway connecting two buildings. This yields confusion if trying to apply the Exception to Section 3104.5.

The added word in the main body of the text is only correcting a typographical error. The separation applies to the entire covered mall building – not just the portion where the pedestrian mall is located. As written, it could be interpreted that there is no separation between the garage and a tenant space.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BOECKER-G3-402.7.1.doc

G36–09/10
402.7.2.1 (New)

Proponent: John England, MCO, England Enterprises Inc., representing the Cities of Beaufort and Hardeeville

Add new text as follows:

402.7.2.1 Tenant spaces in open malls: Each tenant space in an un-sprinkled open mall shall be separated from other tenant spaces by a fire barrier complying with Section 707.

Reason: Sections 402.7.2 assumes the building is a closed mall and is sprinkled. It does not give guidance for open malls that are sprinklered or unsprinklered. This addition to the code would accomplish this and make it compliant with Section 707.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ENGLAND-G2-402.7.2.1.doc

G37–09/10
402.10

Proponent: Michael Perrino, Code Consultants, Inc.

Revise as follows:

402.10 Smoke control. Where a covered mall building contains an atrium, the portion of the covered mall building that constitutes an atrium shall be provided with a smoke control system ~~shall be provided~~ in accordance with Section 404.5.

Exception: A smoke control system in not required in covered mall buildings when the portion of the covered mall building that constitutes an atrium connects only two stories.

Reason: Current language can be interpreted to require smoke control throughout a covered mall building, even if an atrium is located in only a portion of the building. This was clearly not the intent of the code change that brought this language into the code. This language clarifies that only the portion of the building that constitutes and atrium must be provided with smoke control.

Cost Impact: The code change proposal will not increase the cost of construction. The proposal will decrease the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: PERRINO-G1-402.10.doc

G39–09/10
403.2.1 (New)

Proponent: Gary Lewis, Chair, ICC Ad Hoc Committee on Terrorism-Resistant Buildings

Add new text as follows:

403.2.1 Compartmentation. Buildings more than 420 feet (128 m) in building height containing Group B, E, I or M occupancies shall be separated into compartments not exceeding 10,000 square feet (930 m^2). Compartments shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both, having a fire-resistance rating of not less than 1 hour.

(Renumber subsequent sections)

Reason: This code change proposal would add new requirements to the IBC for super high-rise structures only. The National Institute of Standards and Technology (NIST) Final Report on the Collapse of World Trade Center (WTC) Building 7 recommendations for high rise buildings provides justification for this proposal. A key observation from that report that "*buildings should not collapse in infrequent fires that may occur when active fire protection systems are rendered ineffective, e.g., when sprinklers do not exist, are not functional, or are overwhelmed by the fire*",[1] is a message that quantifiable compartmentation is needed in this building type for several reasons.

Recommendation #4 from the original NIST WTC Report[2] reads as follows:
NIST recommends evaluating, and where needed improving, the technical basis for determining appropriate construction classification and fire rating requirements (especially for tall buildings) --- and making related code changes now as much as possible --- by explicitly considering factors including:[23]

- timely access by emergency responders and full evacuation of occupants, or the time required for burnout without partial collapse;
- the extent to which redundancy in active fire protection (sprinkler and standpipe, fire alar, and smoke management) systems should be credited for occupant life safety;
- the need for redundancy in fire protection systems that are critical to structural integrity;
- the ability of the structure and local floor systems to withstand a maximum credible fire scenario without collapse, recognizing that sprinklers could be compromised, not operational, or non-existent;
- compartmentation requirements (e.g. 12,000 $^{ft2\ (27)}$) to protect the structure, including fire rated doors and automatic enclosures, and limiting air supply (e.g. thermally resistant window assemblies) to retard fire spread in buildings with large, open floor plans; (emphasis added)
- the effect of spaces containing unusually large fuel concentrations for the expected occupancy of the building; and
- the extent to which fire control systems, including suppression by automatic or manual means, should be credited as part of the prevention of fire spread.

NIST added a new recommendation for WTC 7's Final Report, over and above those already mentioned in the NIST WTC 1 Reports covering Towers I and II. In NIST NCSTAR 1A, WTC 7 investigation, 5.2.2, Group 2, Recommendation B (NEW):

NIST recommends that buildings be explicitly evaluated to ensure adequate performance of the structural system under maximum credible (infrequent) design fires with any active fire protection system rendered ineffective. Of particular concern are the effects of thermal expansion in buildings with one or more of the following features:

- Long span floor systems which experience thermal expansion and sagging effects;
- connection designs (especially shear connections) that cannot accommodate thermal effects;
- floor framing that induces asymmetric thermally induced (i.e. net lateral) forces on girders;
- shear studs that could fail due to differential thermal expansion in composite floor systems; and
- lack of shear studs on girders. Careful consideration should also be given to the possibility of other design features that may adversely affect the performance of the structural system under fire conditions.[3]

The TRB Committee and others have attempted in prior cycles to deal with this phenomenon by proposing requirements that a more global view of thermal performance of a building frame be considered during the design. That approach included full-floor contents burnout analysis, worst credible fire design and other methodologies that the membership has not yet found acceptable…..but the issue remains unregulated.

For structural purposes, smaller compartments means less rapid fire spread and smaller fuel loads, slowing heat exposure to large lineal footages of beams and columns, and most importantly, the connections. Less heat in smaller areas means less likelihood of warping several structural members simultaneously, meaning less likelihood of collapse due to the conditions stated by NIST in the WTC 7 report, NEW Recommendation B.

Additionally, in Recommendation C, (NIST NCSTAR 1A, Recommendation C (also in NIST WTC report for towers I & II, recommendation 4, bullet 3, & footnote 5), NIST recommends….'the need for redundancy in fire protection systems that are critical to life structural integrity; (passive fire protection system, (including SFRM, compartmentation and firestopping) and the active sprinkler system each provide redundancy for maintaining structural integrity in a building fire, should one of the systems fail to perform it's intended function.' Bullet 5 then adds, "the ability of the structure and local floor systems to withstand a maximum credible fire scenario, without collapse, recognizing that sprinklers could be compromised, not operational, or non existent.".

Although NIST promotes 'redundancy' as a way to improve building safety and structural integrity, we recognize that compartment sizes limited by a 10000 SF fire area can play a large role in fuel load, which in turn reduces possibility of structural collapse, while providing horizontal evacuation for firefighter and occupant staging when egress systems are compromised due to power outage, sabotage or high levels of use.

The 10,000 SF fire area in the proposal stems from the NIST report recommendation, which while it specifically states, 12,000 SF, by footnote 27 clarifies that the value could also be a smaller limit, which represents a reasonable area for active firefighting operations. It is not much less than the fire area used elsewhere in the code when assuming no sprinkler protection in buildings. The area is also associated with the size able to be fought effectively suppressed by firefighters, according to NIST.

In NIST's WTC 7 Report, Chapter 4, 4.6, 'Factors that could have mitigated structural collapse' – "improved compartmentation in tenant areas to limit the spread of fires'[2], was cited as a way to limit the spread of fires, and the impending warpage, connection failures, that may result. There are additional ways to limit the spread of fires in buildings as well.

We believe the code change proposal using fire barriers limiting fire area to 10000 SF adds safety and structural integrity to buildings through compartmentation that meets the intent of NIST's recommendations in the FINAL Report on the Collapse of World Trade Center Building 7.

1. National Institute of Standards & Technology, Final Report of the Collapse of World Trade Center Building 7. United States Government Printing Office: Washington, D.C. November 2008. NIST NCSTAR 1A, WTC Investigation, P63.
2. National Institute of Standards & Technology, Final Report of the National Construction Safety Team on the Collapses of the World Trade Center Towers. United States Government Printing Office: Washington, D.C. September 2005.
3. Op. cit., NIST NCSTAR 1A, Pg 65

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: LEWIS-G1-403.2.doc

G40–09/10
403.2.3.5 (New)

Proponent: Gary Lewis, Chair, ICC Ad Hoc Committee on Terrorism-Resistant Buildings

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

Revise as follows:

403.2.3 Structural integrity of exit stairway and elevator hoistway enclosures. For all high-rise buildings of occupancy category III or IV buildings in accordance with Section 1604.5, and for all buildings that are more than 420 feet (128 m) in building height, exit enclosures and elevator hoistway enclosures shall comply with Sections 403.2.3.1 through ~~403.2.3.4~~ 403.2.3.5.

403.2.3.1 Wall assembly. The wall assemblies making up the exit enclosures and elevator hoistway enclosures shall meet or exceed Soft Body Impact Classification Level 2 as measured by the test method described in ASTM C1629/C1629M.

403.2.3.2 Wall assembly materials. The face of the wall assemblies making up the exit enclosures and elevator hoistway enclosures that are not exposed to the interior of the exit enclosure or elevator hoistway enclosure shall be constructed in accordance with one of the following methods:

1. The wall assembly shall incorporate not less than two layers of impact-resistant construction board each of which meets or exceeds Hard Body Impact Classification Level 2 as measured by the test method described in ASTM C1629/C1629M.
2. The wall assembly shall incorporate not less than one layer of impact-resistant construction material each that meets or exceeds Hard Body Impact Classification Level 3 as measured by the test method described in ASTM C1629/C1629M.
3. The wall assembly shall incorporate multiple layers of any material, tested in tandem, that meet or exceed Hard Body Impact Classification Level 3 as measured by the test method described in ASTM C1629/C1629M.

403.2.3.3 Concrete and masonry walls. Concrete or masonry walls shall be deemed to satisfy the requirements of Sections 403.2.3.1 and 403.2.3.2.

403.2.3.4 Other wall assemblies. Any other wall assembly that provides impact resistance equivalent to that required by Sections 403.2.3.1 and 4.3.2.3.2 for Hard Body Impact Classification Level 3 as measured by the test method described in ASTM C1629/C1629M shall be permitted.

403.2.3.5 Blast resistance. The wall assemblies of stairway and hoistway enclosures, from the top of each floor to the underside of the floor or roof above and connections to supporting members, shall be capable of resisting a factored load using strength design, expressed as a uniform pressure, of not less than 2 psi (13.8 kPa) applied perpendicularly to the exterior of the enclosure. This load need not be assumed to act concurrently with the loads specified in Chapter 16 and shall be assumed to apply to one floor at a time.

Reason: The purpose of this change is to establish a standard for the structural robustness of exit stairway and elevator shaft enclosures. It implements Recommendation 18 of the National Institute of Standards and Technology (NIST) report on the World Trade Center (WTC) tragedy.

The Code has traditionally looked upon a stair enclosure as a place of relative safety. There are any number of carefully crafted code provisions designed to ensure that goal, but they are based upon only one hazard – fire. The enclosures of these stairways are made fire resistive through the traditional rating and listing system, but the Code does not establish a criterion for structural robustness. The proponents do not believe that the existing "hose stream" test addresses this issue. The hose stream does not and cannot represent the real world impact of blast loads that a stair shaft might encounter. Neither does the ongoing industry work designed to develop an impact resistance test standard. That work relates to durability rather than safety. The proponents believe that a structural standard is needed.

The stairway enclosures of the WTC were destroyed by an aircraft impact. Far lesser events, such as a gas explosion or a vehicle impact (on lower floors) can destroy a stairway enclosure, especially when one considers that the Code contains no structural criteria at all. The 2 psi load requirement is consistent with the overpressure associated with a gas explosion. NIST has performed an analysis to verify this statement. Any structural robustness that existing stairway enclosures have is a by-product of the fire rating process; a process that was never intended to provide structural integrity.

A new criterion is needed for exit stair enclosures – a structural one.

The NIST WTC Report suggests a standard based upon resistance to over-pressure. This approach has two real advantages. It reflects one possible damage scenario and can represent others as well. Secondly, it is a performance standard. All materials can be analyzed and engineered to comply.

Compliance with this standard is determined by engineering analysis, not a test. This is a simple and direct approach that can be implemented immediately.

Bibliography:

National Institute of Standards and Technology. Final Report of the National Construction Safety Team on the Collapses of the World Trade Center Towers. United States Government Printing Office: Washington, D.C. September 2005.

Cost Impact: The code change proposal will increase the cost of construction. This proposal will increase the cost of construction but the continued absence of structural criteria for exit stairway enclosures is not possible. This is a cost that must be met for safety's sake.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: LEWIS-G4-403.2.3

G41–09/10

403.2.4, Table 403.2.4

Proponent: Paul K. Heilstedt, PE, FAIA, Chair, representing ICC Code Technology Committee (CTC) and Lawrence G. Perry, AIA, representing Building Owners and Managers Association (BOMA) International

THIS PROPOSAL IS ON THE AGENDA OF THE IBC FIRE SAFETY CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC FIRE SAFETY CODE DEVELOPMENT COMMITTEE.

Delete without substitution as follows:

~~**403.2.4 Sprayed fire-resistive materials (SFRM).** The bond strength of the SFRM installed throughout the building shall be in accordance with Table 403.2.4.~~

~~**TABLE 403.2.4**~~
~~**MINIMUM BOND STRENGTH**~~

~~**HEIGHT OF BUILDING**~~ [a]	~~**SFRM MINIMUM BOND STRENGTH**~~
~~Up to 420 feet~~	~~430 psf~~
~~Greater than 420 feet~~	~~1,000 psf~~

~~For SI: 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kW/m^2~~

~~a. Above the lowest level of fire department vehicle access~~

Reason: Heilstedt - The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April/2005, the CTC has held seventeen meetings - all open to the public

This proposed change is a result of the CTC's investigation of the area of study entitled "Review of NIST WTC Recommendations". The scope of the activity is noted as:

> Review the recommendations issued by NIST in its report entitled "Final Report on the Collapse of the World Trade Center Towers", issued September 2005, for applicability to the building environment as regulated by the I-Codes. To evaluate the necessity of developing code changes in response to the NIST report.

The current provisions for minimum bond strength were added to the code via G68-06/97. The following is the committees reason for inclusion:

Committee Reason: Although the data which provides technical support was not provided within the proposal, this does go along with the NIST recommendations and should provide better safety in high-rise buildings. Using the greater bond strengths will increase the probability that the protection will stay in place and will reduce the likelihood of being dislodged. These factors should provide for a longer time of safety. Placing the requirements in the high-rise provisions of Chapter 4 instead of within Chapter 7 makes sense because they are only applicable to high-rises and will be more likely to be found within that section. The committee did agree with the different bond strength requirements based upon the thought the taller buildings are at a higher risk and that items such as the vibration of tall buildings will affect the long term performance. Based on testimony which was provided, the cost impact of this requirement was considered as being relatively small. The higher density products which are currently available will generally meet these requirements. The modifications included a revision of the terminology Aspray applied@ to Asprayed@ to be consistent with the action of FS156-06/07 and to create a more global point of reference for building height by moving footnote a to the main title of the first column.

In submitting a public comment to G69-07/08 last cycle to remove the minimimum and retain the 150 psf in Chapter 17, CTC noted that the current provisions for minimum bond strength were the results of G68-06/07 last cycle. As noted in the reason statement for the code change, it

notes “The purpose of this proposal is to increase the required adhesions of Spray Applied Fire Resistant Materials (SFRM).” The proposal further sites Recommendation 6 of the NIST WTC report which calls for improvement of the in-place performance of SFRM. NIST Recommendation 6 reads as follows:

> NIST recommends the development of criteria, test methods, and standards: (1) for the in-service performance of sprayed fire-resistive materials (SFRM, also commonly referred to as fireproofing or insulation) used to protect structural components; and (2) to ensure that these materials, as-installed, conform to conditions in tests used to establish the fire resistance rating of components, assemblies, and systems.

The CTC notes that the prior to the approval of the increased bond strength in Table 403.15 that the code mandated cohesive/adhesive bond strength, regardless of height, was 150 psf in Section 1704.10.5. In fact, this section has remained unchanged and was not coordinated with the new provisions in Table 403.15.

Based on input received by the CTC, the CTC position remains that the bond strength should not be increased as a function of height. As noted in the NIST recommendation, the concern is one of in-service performance of the SFRM which means the material must remain in place to perform its intended function, regardless of height. This is an inspection related issue, one for which the CTC submitted code change S39-06/07 to improve the inspection provisions, including:

- Increased number of sampling locations
- Specific sampling for columns, beams, joists and trusses
- Physical and visual tests for: substrates; thickness; density, bond strength

S39-06/07 was approved and the provisions will be incorporated in the 2009 edition of the IBC.

There is no credible technical evidence or documented experience to indicate that the increased minimum bond strength requirements specified in the subject text and Table improve the long term durability of sprayed fire –resistive materials (SFRM) in high-rise buildings or improve the chances of SFRM to be in place when it is needed (in the event of a fire). The single proven effect of these increased bond provisions is to dramatically increase the SFRM installed cost by up to 250%. SFRM minimum bond strength of 150 psf (Section 1704.12.6), in conjunction with inspections and field tests, specified in Section 1704.12, are adequate to ensure SFRM is in place after completion of the construction phase. Regular inspections and timely repairs are needed to ensure SFRM in-place condition over the life of the building, regardless of the bond strength of SFRM.

A survey of the commercially available SFRM products in terms of their bond strength and density, conducted by the American Iron and Steel Institute (AISI) in 2007 clearly indicates that the provisions in Section 403.2.4 and Table 403.2.4 are specifically calibrated and targeted to ban standard-density SFRM products from the high-rise market – i.e., these provisions create an artificial commercial barrier, but do not address any measurable risks or safety concerns tied to any meaningful bond strength values (in terms of SFRM in-place durability).

The current provisions in Section 403.2.4and Table 403.2.4 resulted from proposal G68-06/07 (and further slightly modified by proposal G68-07/08), based on misleading technical information and flawed cost impact analysis provided in the proposal and relevant testimonies during the public hearings:

- G68-06/07 reason statement suggested “building sway” as a “known” “initiating event” for SFRM dislodgement. Testimony during the public hearings also suggested building vibration as a possible cause for SFRM dislodgement. To date, no evidence has been found to document either of these claims.
- G68-06/07 reason statement noted that “The purpose of this proposal is to increase the required adhesions of Spray Applied Fire Resistant Materials (SFRM)”, seeking to achieve the improvements called for in Recommendation 6 of NIST WTC Report. Testimonies during the hearings further suggested that proposal G68-06/07 is somehow based on NIST WTC Investigation and its recommendations. In fact, NIST Recommendation 6 reads as follows:

  > “NIST recommends the development of criteria, test methods, and standards: (1) for the in-service performance of sprayed fire-resistive materials (SFRM, also commonly referred to as fireproofing insulation) used to protect structural components; and (2) to ensure that these materials, as-installed, conform to conditions in tests used to establish the fire resistance rating of components, assemblies, and systems.”

  There is nothing in Recommendation 6, or in any other part of the NIST WTC Investigation Report, to justify the immediate need to arbitrarily increase the SFRM bond strength. Nothing in the published NIST report suggested that the SFRM bond strength was inadequate for any of the intended purposes. The compiled records actually indicated that WTC towers endured numerous fires prior to 9/11 with minimal or no structural damage. Nothing in the NIST Report suggested that any existing SFRM product with higher bond strength and/or higher density would have performed better, or would have changed the sequence or the outcome of events.
- G68-06/07 proposal noted that “Many tall buildings already utilize these higher strength materials”. However, in 2006, there was only one high-rise building known to utilize medium-density SFRM throughout the building (the reconstructed WTC 7), and the owner did it for understandable reasons In fact, the absence of long-term nation-wide experience with the “throughout” application of medium-density and high-density SFRM in high-rise buildings should be a cause for concern – due to the lack of long term data to support their use.
- G68-06/07 offered flawed cost impact analysis stating that the associated cost increase will be only marginal. In fact, credible estimates for real projects indicated very significant cost increase for installed medium-density and high-density SFRM. Independent estimates by government agencies (reported in G69-07/08) indicated that minimum bond strength requirement of 430 psf increases the SFRM cost by over 50%, while the requirement of 1000 psf increases SFRM cost by about 170%. Other independent estimates in the 2007 AISI report show similar cost increases: by over 50% for medium-density SFRM, and by over 230% for high-density SFRM. These increases cannot be characterized as “marginal” or “relatively small”. The cost impact of Table 403..2.4 provisions needs to be fully considered, and society’s fire protection resources need to be effectively allocated in a meaningful way.
- Several testimonies during the public hearing exploited the notion of standard-density SFRM dislodgement under its own weight for no apparent reason or due to the lack of bond strength. In fact, SFRM dislodgement are almost always linked to very specific reasons that are irrelevant to bond strength – over the building lifetime, the overwhelming majority of documented dislodgement cases are caused by direct contact/impact removals of SFRM associated with human activities such as construction, demolition, remodeling, testing, structural inspections, maintenance operations, electrical/mechanical installations, and also, associated with equipment failures, such as water leaks, improper elevator operations, and similar reasons. The information compiled in WTC Investigation Report NCSTAR 1-6A clearly illustrates typical cases, e.g.:

  > “Section 3.7 with photographs in Figures 3-5 through 3-10 states that, “There were many instances where SFRM had obviously been dislodged in the process of installing utilities. In some cases hardware was attached directly to the lower chords and SFRM was dislodged. These damaged areas should have been repaired when the various trades had completed their work”. Section 3.7 also states that “the overall views of the trusses showed that regions of missing insulation were minor in extent when compared with the total area of applied SFRM”.
  > Figure A-36 points to SFRM damage on trusses due to “tenant construction work” or “works over the years in the ceiling” by the Port Authority.
  > Figure A-37 points to SFRM damage on trusses "during demolition after tenants move out" as "ductwork, partitions, hangers, etc. are removed".
  > Figure A-38 points to SFRM "damaged by installation of new construction".
  > Figure A-39 points to SFRM "disturbed by remodeling operations"

Figure A-49 points to SFRM re-occurring "extensive damage" in the elevator shafts caused by "the slack condition in compensating cables, especially on shuttle cars, causing a chafing condition against finished spray-on fireproofing on structural steel within hoistways". Figure A-56 and A-57 (excerpts from LERA reports dated 1993 and 1995) point to SFRM damage in elevator shafts due to "rubbing of the hoist cable against the face of column", or "due to testing purposes". In one instance, the LERA reports also point to the installation of bracket as the cause for missing fireproofing.

The entire compilation of maintenance and inspections documents in the published reports of NIST WTC Investigation does not contain a single case of SFRM dislodgement linked to the lack of SFRM bond strength, despite the fact that all structural steel and steel joists in WTC towers was primed (SFRM application over primed and/or painted steel is known to reduce bond strength).

Similar causes of SFRM dislodgement, irrelevant to bond strength, were reported in the 2007 AISI report of building architects and construction contractors to evaluate their use of SFRM and their experiences with it. This survey is more relevant to the initial construction and/or major renovation phases in buildings' lifetime, and identifies intentional removal of SFRM by construction trades as the primary cause of SFRM dislodgement.

In summary, the two leading causes of SFRM dislodgement during construction and maintenance of buildings are:

- Primary cause - intentional removal of SFRM associated with human activities, such as construction, renovation, electrical/mechanical installations, testing, inspections, maintenance operations, etc. This type of SFRM dislodgement is completely irrelevant to SFRM bond strength. Only inspections and timely repairs could address intentional removal of SFRM.
- Secondary cause - unintentional/accidental removal of SFRM associated with human activities and equipment failures. While the use of higher-density SFRM products could slightly reduce dislodgements associated with some accidental abuses, such as light abrasive actions and light impacts, existing medium-density and high-density SFRM products are still by far incapable to substantially reduce dislodgements or address all common causes of accidental removals (e.g. water leaks, repeated and stronger abrasive actions and impacts, etc). Concealment of SFRM-protected steel elements in protective envelopes (e.g. gypsum board) or behind suspended ceilings is the most effective way in avoiding accidental dislodgement due to most accidental impacts and abrasions. Again, only inspections and timely repairs could adequately address unintentional/accidental removal of SFRM.

Analysis of Proposed Change G68-06/07 to the 2006 Edition of IBC", by Farid Alfawakhiri, Ph.D., American Iron and Steel Institute, January 2007.

Bibliography: NIST NCSTAR 1, "Federal Building and Fire Safety Investigation of the World Trade Center Disaster: Final Report on the Collapse of the World Trade Center Towers", National Institute of Standards and Technology, September 2005 (available at http://wtc.nist.gov/).

Carino et al, NIST NCSTAR 1- 6A, "Federal Building and Fire Safety Investigation of the World Trade Center Disaster: Passive Fire Protection", National Institute of Standards and Technology, September 2005 (available at http://wtc.nist.gov/).

Perry - In their approval of the new SFRM requirements during the 2006/2007 cycle, the Fire Safety Committee specifically noted that neither technical substantiation nor cost data had been provided to the committee. Last cycle (2007/2008), cost information was provided to the committee, clearly indicating that costs are far beyond the moderate 'incremental' increases alluded to by proponents last cycle. The Fire Safety Committee voted to maintain the increased SFRM bond strength provisions, "based on a lack of technical substantiation to take them out".

This committee is on record that they had no technical substantiation when they added this requirement to the code, yet they now will not remove the provisions unless they receive technical substantiation?

There is no evidence that arbitrarily tripling (from 150 psf to 430 psf) the bond strength of SFRM will provide any additional degree of safety in 75' tall buildings, and no evidence that increasing the bond strength by a factor of 7 (from 150 psf to 1000 psf) will provide any additional degree of safety in buildings >420' in height.

The extent of the cost impacts calculated by both GSA and the steel industry make it clear that the first response to this provision, if it remains, will be to look for alternatives. There has been no explanation from those touting the need for increasing SFRM bond strength for how a gypsum-board encased column (which can achieve the required hourly ratings) would compare to columns with any of the various types of SFRM.

Cost Impact: Heilstedt - The code change proposal will not increase the cost of construction.
Perry - The code change proposal will not increase the cost of construction. This change will decrease the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEILSTEDT-G6-403.2.4.doc

G42–09/10
403.2.4

Proponent: Farid Alfawakhiri, American Iron and Steel Institute (AISI)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC FIRE SAFETY CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC FIRE SAFETY CODE DEVELOPMENT COMMITTEE.

Revise as follows:

403.2.4 Sprayed fire-resistant materials (SFRM). The bond strength of the SFRM installed throughout the building shall be in accordance with Table 403.2.4.

TABLE 403.2.4
MINIMUM BOND STRENGTH

HEIGHT OF BUILDING [a]	SFRM MINIMUM BOND STRENGTH
Up to 420 feet	~~430~~ 250 psf
Greater than 420 feet	1,000 psf

For SI: 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kW/m^2.
a. Above the lowest level of fire department vehicle access.

Reason: This proposal attempts to balance reasonable economic considerations with safety concerns (whether substantiated or not) in buildings 75 ft to 420 ft in height. The proposed SFRM minimum bond strength of 250 psf is economically feasible, because it can be achieved with the majority of standard-density SFRM products and attention to application technology practices. The proposed 250 psf bond strength is significantly higher that the 150 psf SFRM minimum bond strength (Section 1704.12.6) required in low and mid-rise buildings.

The current requirement of SFRM minimum bond strength of 430 psf in Table 403.2.4 is not tied to any measurable risks or meaningful performance/durability criteria, i.e. there is no evidence that this increased bond strength requirement reduces SFRM dislodgement or improves the chances of SFRM to remain in place. However, the 430 psf bond strength requirement effectively bans standard-density SFRM products from the high-rise market and dramatically increases the SFRM installed cost by over 50%.

Buildings 75 ft to 420 ft (roughly 6 to 35 stories) in height are very common in urban areas, and they do not pose very high evacuation risks or very high loss risks, associated with "super-high-rises". The broad and lengthy experience with these buildings has not resulted in any documented cases of structural fire damage (let alone structural failure due to fire) linked to poor SFRM bond strength. Therefore, the unsubstantiated and expensive requirement of 430 psf SFRM bond strength can hardly be justified.

The current provisions in Section 403.2.4and Table 403.2.4 are the result of code change proposal G68-06/07, based on misleading technical information and flawed cost impact analysis, stating that the associated cost increase will be only marginal. However, credible estimates for real projects indicated very significant cost increases associated with the substitution of standard-density SFRM by medium-density SFRM. Independent estimates by government agencies (reported in G69-07/08) indicated that minimum bond strength requirement of 430 psf increases the SFRM installed cost by over 50%. Other independent estimates commissioned by the American Iron and Steel Institute (AISI) show similar cost increases. The details of these estimates are provided in the substantiation report referenced below. These increases cannot be characterized as "marginal".

AISI supports cost effective code changes that will improve the real world performance of SFRM. We share the desire to take action that would adequately respond to the events of September 11 and address credible safety concerns. Unfortunately, we believe that the current provisions of 403.2.4 achieve marginal (if any) risk reduction and they have economic implications that are not cost effective. We urge the membership to support this proposed revision.

Substantiation: "Analysis of Proposed Change G68-06/07 to the 2006 Edition of IBC", by Farid Alfawakhiri, Ph.D., American Iron and Steel Institute, January 2007 (available at http://www.iccsafe.org/cs/cc/ctc/WTC/resource/AISI_Analysis_of_Bond_Strength.pdf).

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ALFAWAKHIRI-G1-TABLE 403.2.4

G43–09/10

403.3.3 (New), Table 508.2.5

Proponent: Wayne R. Jewell, CBO, City of Southfield, representing self

1. Add new text as follows:

403.3.3 Fire pump room. Fire pumps shall be located in rooms protected in accordance with Section 913.2.1.

2. Revise table as follows:

TABLE 508.2.5
INCIDENTAL ACCOSSORY OCCUPANCIES

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Hydrogen cut-off rooms, not classified as Group H	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic fire-extinguishing system
Laboratories and vocational shops, not classified as Group H, located in Group E or I-2 occupancies	1 hour or provide automatic fire-extinguishing system
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Group I-3 cells equipped with padded surfaces	1 hour
Group I-2 waste and linen collection rooms	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons or a lithium-ion capacity of 1,000 pound used for facility standby power, emergency power or uninterrupted power supplies	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies
~~Rooms containing fire pumps in nonhigh-rise buildings~~	~~2 hours; or 1 hour and provide automatic sprinkler system throughout the building~~
~~Rooms containing fire pumps in high-rise buildings~~	~~2 hours~~

For SI: 1 square foot = 0.0929 m^2, 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L.

Reason: Adding Section 403.3.3 provides a proper link to the protection requirements found in Section 913.2.1 added during the last cycle for a fire pump room in a high-rise building. Revising Table 508.2.5 in striking the two lines removes the confusion that could occur since all options under Section 508 are not required to use the provisions of the table, yet fire pumps can occur in the multiple types of buildings permitted under Section 508 and these protection provisions are required under all instances.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: JEWELL-G1-403.3.3 NEW

G44–09/10

403.4.5, 403.4.8.1, 708.14.1, Chapter 35; IFC 508.1.5 (IBC [F] 911.1.5)

Proponent: Gary Lewis, Chair, ICC Ad Hoc Committee on Terrorism-Resistant Buildings

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC GENERAL

1. Add new text as follows:

403.4.5 Video surveillance system. A video surveillance system installed in accordance with NFPA 731, shall be installed in each elevator lobby provided in accordance with Section 708.14.1 and at every fifth floor of each required stairway and connected to an approved, constantly attended station. The surveillance system shall not be required to provide positive visual recognition of individual persons.

(Renumber subsequent sections)

2. Revise as follows

403.4.8.1 Emergency power loads. The following are classified as emergency power loads:

1. Exit signs and *means of egress* illumination required by Chapter 10;
2. Elevator car lighting;
3. Emergency voice/alarm communications systems;
4. Automatic fire detection systems;
5. Video surveillance systems;
~~5.~~6. Fire alarm systems; and
~~6.~~7. Electrically powered fire pumps.

708.14.1 Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by fire partitions. In addition to the requirements of Section 709 for fire partitions, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section 715.4.3 as required for corridor walls and penetrations of the elevator lobby enclosure by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 716.5.4.1. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code. In high-rise buildings the elevator lobby shall be provided with a video surveillance system installed in accordance with NFPA 731.

Exceptions:

1. through 7. (No change to exceptions)

3. Add new standard to Chapter 35 as follows:

NFPA
731-2008 The Standard for the Installation of Electronic Premises Security Systems

PART II – IFC

Revise as follows:

508.1.5 (IBC [F] 911.1.5) Required features. The fire-command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air handling systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, firefighting equipment and fire department access and the location of fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions.
13. Work table.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.
16. Elevator fire recall switch in accordance with ASME A17.1.
17. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.
18. Video monitoring for video surveillance system required by this code.

Reason: This proposal adds new requirements to the code for high-rise buildings. The purpose of this change is to increase the ability of firefighters, and other emergency responders, to develop a clear picture of conditions throughout the building which will enable them to better manage evacuation, fire suppression and other emergency response activities. The purpose is also to enhance the safety of emergency responders by enabling them to maintain better situational awareness.

The National Institute of Standards and Technology's (NIST) report on the World Trade Center (WTC) tragedy amply documented the tactical and informational difficulties experienced by emergency responders and occupants during the WTC event. Similar difficulties occur in much smaller events and they place lives at risk.

The Code already requires many systems which enhance emergency responder and occupant awareness. Their use can be improved and they can be further supplemented. Recommendation 23 of the WTC Report specifically calls for:

> The establishment and implementation of detailed procedures and methods for gathering, processing, and delivering critical information through integration of relevant voice, video, graphical and written data to enhance situational awareness of all emergency responders.

This proposal seeks to improve responder awareness of conditions in the building to assist in management of an incident and improve the existing fire command center to enhance its value. Awareness is improved by requiring control center monitoring of video surveillance in stairway shafts and elevator lobbies. With the introduction of dedicated fire service elevators and occupant egress elevators into the IBC, the necessity of monitoring the status of the elevator lobbies becomes even more significant.

There will be those opponents that will claim that that the amount of information generated by the video monitoring in a large building will cause "information overload". They will question the ability of the staff in the fire command center to observe all of the required video feeds at once. In response to this, please be aware that there is commercial off-the-shelf "intelligent software" that is available such that the staff of the fire command center need not observe all of these feeds; the software is "event driven" and will select information that is pertinent and display just this information. This software is currently available off-the-shelf from companies such as Johnson Control and Honeywell. The Port Authority of New York and New Jersey is currently installing a system to monitor the perimeter of the Newark airport by the use of *ONE* video screen. Clearly the perimeter of this airport is substantially larger than the portions of the building that are required to be monitored as a result of this code change. By requiring these video feeds, the situational awareness of the staff in the fire command center is substantially increased. While researching the availability of this software, we were informed by Mr. Alan Reiss the building manager of the World Trade Center, that he was unaware of the magnitude of the event on September 11, 2001. In fact, he commented that the people at home watching the television had a better situational awareness than he did because of the lack of information available at the fire command center. This has to be changed and this proposal will change it.

Bottom line, the video monitoring system will provide fire and emergency responders' immediate information on the life safety condition and status of the areas noted. Having such ability will exceed any expense incurred for the installation of the video monitoring system - the expense is minor to the benefit of the system. (Note: Regardless of this requirement, electronic data access systems can be installed for a reasonable cost in most buildings today). A video monitoring system will provide fire and emergency responders with accurate and up to date information on the condition and activities of the given areas for emergency responders to make tactical decisions under emergency conditions. With that said, the TRB committee encourages consideration and support for this proposal.

Bibliography: National Institute of Standards & Technology, Final Report of the National Construction safety Team on the Collapses of the World Trade Center Towers. United States Government Printing Office: Washington, D.C. September 2005.

Referenced Standards
National Fire Protection Association Standard 731, the Standard for the Installation of Electronic Premises Security Systems

Cost Impact: The code change proposal will not increase the cost of construction. These proposed amendments will increase the cost of construction, but, the increase will be modest when viewed as a percentage of total construction costs.

Analysis: A review of the standard proposed for inclusion in the code, NFPA 731, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IFC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: LEWIS-G3-403.12.1.doc

G45–09/10
403.4.7, 403.4.7.2

Proponent: Brian Black, BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII)

Revise as follows:

[F] 403.4.7 Standby power. A standby power system complying with Chapter 27 and Section 3003 shall be provided for standby power loads specified in 403.4.7.2. Where elevators are provided in a high-rise building for accessible means of egress, fire service access or occupant self-evacuation, the standby power system shall also comply with Sections 1007.4, 3007 or 3008, as applicable.

[F] 403.4.7.1 Special requirements for standby power. (No change to current text)

[F] 403.4.7.2 Standby power loads. The following are classified as standby power loads:

1. Power and lighting for the fire command center required by Section 403.4.5;
2. Ventilation and automatic fire detection equipment for smokeproof enclosures; and
3. Elevators. ~~Standby power shall be provided for elevators in accordance with Sections 1007.4, 3003, 3007, and 3008.~~

Reason: As currently formatted and written, the 2009 IBC is unclear that elevators in high-rise buildings which aren't used for compliance with 1007.4, 3007 or 3008 have to have standby power. It almost does. Section 403.4.7.2 should be a simple list of the items that are "defined' as standby power loads'. Section 403.4.7 says there has to be a system for the listed loads. Item 3 however says: Standby power shall be provided in accordance with four other sections in Chapter 30. Three of those four sections have specific requirements for standby power and what it should cover. Section 3003 simply tells you how to design the system for elevators – when it is required in a building. But 3003 isn't the scoping requirement, it's the design requirement.

This proposal makes elevators just another listed item in the standby power loads and then it moves up to Section 403.4.7, the references to the design requirements. Section 403.4.7 is already a reference to part of the design requirements – by sending the user to Chapter 27 – from which one gets to the Electrical Code.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G1-403.4.7.doc

G46–09/10
403.5.2, 3008.4

Proponent: Rick Thornberry, PE, The Code Consortium, Inc., representing: California Fire Safety Advisory Council (CFSAC); Bill Ziegert, representing Smoke Guard, Inc.

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

2. Revise as follows:

403.5.2 Additional exit stairway. For buildings other than Group R-2 that are more than 420 feet (128 000 mm) in building height, one additional exit stairway meeting the requirements of Sections 1009 and 1022 shall be provided in addition to the minimum number of exits required by Section 1021.1. The total width of any combination of remaining exit stairways with one exit stairway removed shall not be less than the total width required by Section 1005.1. Scissor stairs shall not be considered the additional exit stairway required by this section.

> ~~**Exception:** An additional exit stairway shall not be required to be installed in buildings having elevators used for occupant self-evacuation in accordance with Section 3008.~~

2. Delete without substitution:

~~**3008.4 Additional exit stairway.** Where an additional means of egress is required in accordance with Section 403.5.2, an additional exit stairway shall not be required to be installed in buildings having elevators used for occupant self-evacuation in accordance with this section.~~

Reason:

Thornberry: We are proposing to delete the Exception to Section 403.5.2 as well as Section 3008.4 which allow the use of occupant evacuation elevators in lieu of the additional exit stairway where required by Section 403.5.2 for super high-rise buildings (buildings greater than 420 ft in height). We believe this technology is too new and unproven to allow it to substitute for a required means of egress. This position is also consistent with Section 1003.7 Elevators, Escalators and Moving Walks which prohibits elevators from being used as a component of a required means of egress. Until such time as occupant evacuation elevators (which are allowed to be used on a voluntary basis without reducing the required means of egress) have proven to be safe, reliable, and effective, this exception should be deleted from the code.

Ziegert: When the concept of Occupant Evacuation Elevators was proposed during the Palm Springs hearings in 2008, while many committee members were in favor of such a concept, the change was Disapproved primarily because it sought a tradeoff of reducing exit stair capacity (width). The proponent brought this change back to the Minneapolis Final Action hearings with substantial modifications and replaced the reduction in exit stair width with this alternate tradeoff to reduce the third stair in High Rise buildings over 420 feet (a different form of tradeoff but still a reduction in exit capacity). Justification for this tradeoff of exit capacity was never sufficiently provided, particularly when one recognizes that the elevator occupant evacuation system will only be operational until the Fire Service arrives (typically in 10 minutes or less from the first alarm). At this time Phase 1 Elevator Recall will normally be implemented which will immediately terminate the use of elevators for occupant evacuation. Following that, occupants needing to use stairs for evacuation in these very tall buildings would be limited to only the two stair systems, rather than the three stair systems the code currently mandates.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THORNBERRY-G6-403.5.2

G47–09/10
403.5.4

Proponent: David S. Collins, FAIA, The Preview Group, Inc., The American Institute of Architects

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

403.5.4 Smokeproof enclosures. Every required exit *stairway* serving floors more than 75 feet (22 860) above the lowest level of fire department vehicle access shall comply with Sections 909.20 and 1020.1.7. The smokeproof enclosure shall be continuous to the level of exit discharge.

> **Exception:** Portions of stairways which extend to serve floors below the level of exit discharge shall not be required to comply with Sections 909.20 and 1020.1.7 provided the portion of the stairway below the level of exit discharge is separated from the smokeproof enclosure with not less than 1-hour fire barriers constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 712, or both.

Reason: This code change clarifies where a smokeproof exit enclosure is required. It isn't clear what a required level exit stairway is intended to be. The proposed exception clarifies the Section does not apply to levels below the point of exit discharge if enclosed with a 1 Hr. fire barrier.

Cost Impact: The code change proposal will not increase the cost of construction. This will reduce the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: COLLINS-G5-403.5.2

G48–09/10
403.6.1, 3007.1, 3007.1.1 (New)

Proponent: Dave Frable, U.S. General Services Administration

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

403.6.1 Fire service access elevator. In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, a minimum of ~~one~~ two elevators having a minimum 3,500 pounds (1588 kilograms) capacity serving every floor within the subject building shall be provided to serve as a fire service access elevator ~~shall be provided~~ in accordance with Section 3007.

> **Exception:** One elevator having a minimum capacity of 4,000 pounds (1814 kilograms) shall be permitted instead of 2 elevators of 3,500 pounds (1588 kilograms) capacity.

3007.1 General. Where required by Section 403.6.1, every floor of the building shall be served by ~~a~~ fire service access ~~elevator~~ elevators. Except as modified in ~~this section, the~~ Sections 3007.1 through 3007.7, fire service access ~~elevator~~ elevators shall be installed in accordance with this chapter and ASME A17.1/CSA B44.

3007.1.1 Ambulance stretcher. At least one fire service access elevator shall be sized to accommodate a stretcher in conformance with Section 3002.4.

Reason: Last Code Development Cycle, a code change was submitted to require a minimum of 3 fire service elevators. The subject proposal was disapproved by the Code Committee based on concerns that requiring a minimum of 3 fire service access elevators would have an adverse impact on a small footprint high-rise building and that requiring a minimum of 3 fire service access elevators seemed excessive. The intent of this code change is to provide a compromise that addresses the minimum number of fire service access elevators that are required in a building based on the size and capacity of the elevator and not strictly the number of elevators. The proposed text also allows for design flexibility as well as providing minimum requirements for the size and capacity of the fire service access elevators by correlating with Section 3002.4

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G6-403.6.1

G49–09/10
403.6.1

Proponent: Brian Black, BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII); Sean DeCrane, representing International Association of Fire Fighters (IAFF); Jack Murphy, representing Fire Safety Directors of Greater New York (FSDAGNY)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

403.6.1 Fire service access elevator. In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, a minimum of ~~one~~ three fire service access elevators, or all elevators, whichever is less, shall be provided in accordance with Section 3007.

Reason: The proponents performed a survey of firefighters from across the country to explore the sufficiency of this current code requirement. Thirty-five responses were received from cities such as Charlotte, Orlando, San Francisco, Houston, Los Angeles, Fort Worth, Boston and Pittsburgh, all indicating that the number of elevators used for firefighting operations varies from 2 to 6. (Only one respondent, a suburban bedroom community indicated one elevator is sufficient for firefighting.) Firefighters experienced in high rise operations stated that the Fire Service must be able to count on **at least two** elevators at all times. They are necessary for 1) transporting firefighters to and from the staging area, usually located two floors below the fire floor; 2) moving firefighters to other floors for the purpose of search and rescue, fire extension, recon; hauling of equipment such as spare cylinders, exhaust fans, etc; and, 3) transporting those with disabilities to the building lobby.

Past experience during fires of this type (high-rise), is that on many occasions elevators are not available due to shut downs for various reasons, including problems in operation, routine maintenance, modernization programs, EMS operations in the building prior to firefighter arrival and other reasons. Without this change there will be a high chance that there will not be a Fire Service Access Elevator available for the firefighters' to perform their critical firefighting and life-saving rescue duties.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G5-403.6.1

G50–09/10
404.6

Proponent: Michael Perrino, Code Consultants, Inc.

Delete and substitute as follows:

404.6 Enclosure of atriums. Atrium spaces shall be separated from adjacent spaces by a 1-hour fire barrier constructed in accordance with Section 707 or a horizontal assembly constructed in accordance with Section 712, or both.

Exceptions:

~~1. A glass wall forming a smoke partition where automatic sprinklers are spaced 6 feet (1829 mm) or less along both sides of the separation wall, or on the room side only if there is not a walkway on the atrium side, and between 4 inches and 12 inches (102mmand 305 mm) away from the glass and designed so that the entire surface of the glass is wet upon activation of the sprinkler system without obstruction. The glass shall be installed in a gasketed frame so that the framing system deflects without breaking (loading) the glass before the sprinkler system operates.~~

1. A glass wall and doors forming a smoke partition in accordance with Section 711, constructed of a tempered, wired or laminated glass wall and doors, complying with all of the following:

1.1. Automatic sprinklers are spaced 6 feet (1829 mm) or less along both sides of the separation wall and doors, or on the room side only if there is not a walkway on the atrium side, and between 4 inches and 12 inches (102 mm and 305 mm) away from the glass. When activated the sprinkler system shall completely wet the entire surface of the glass.
1.2. The glass shall be in a gasketed frame and installed in a manner that the framing system will deflect without breaking (loading) the glass before the sprinklers operate.
1.3. Obstructions shall not be installed between the sprinklers and the glass wall or doors.

2. A glass-block wall assembly in accordance with Section 2110 and having a 3/4-hour fire protection rating.
3. The adjacent spaces of any three *floors* of the atrium shall not be required to be separated from the atrium where such spaces are accounted for in the design of the smoke control system.

Reason: The change brings to the atrium section the allowance for doors to be protected in the same manner as is permitted for walls and doors separating a pedestrian walkway from a building by Section 3104.5, exception 1. The allowances are almost identical as currently written, the only difference being the specific allowance for doors to be installed in the glass walls separating buildings, but not in glass walls separating atrium spaces.

Cost Impact: The code change proposal will not increase the cost of construction. The proposal will decrease the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: PERRINO-G2-404.5

G51–09/10
404.6

Proponent: Clay Aler, PE, Koffel Associates

Revise as follows:

404.6 Enclosure of atriums. Atrium spaces shall be separated from adjacent spaces by a 1-hour *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 712, or both.

Exceptions:

1. A glass wall forming a smoke partition where automatic sprinklers are spaced 6 feet (1829 mm) or less along both sides of the separation wall, or on the room side only if there is not a walkway on the atrium side, and between 4 inches and 12 inches (102 mm and 305 mm) away from the glass and designed so that the entire surface of the glass is wet upon activation of the sprinkler system without obstruction. The glass wall shall be installed in a gasketed frame so that the framing system deflects without breaking (loading) the glass before the sprinkler system operates. Self-closing glass doors shall be permitted in the glass wall.
2. A glass-block wall assembly in accordance with Section 2110 and having a 3/4-hour *fire protection rating*.
3. The adjacent spaces of any three floors of the atrium shall not be required to be separated from the atrium where such spaces are accounted for in the design of the smoke control system.

Reason: Where glass walls are used as an atrium enclosure, it is typical to include glass doors in the glass walls to maintain material continuity. The current code text makes no reference to whether glass doors are permitted as part of the atrium enclosure. The proposed revised text will make it clear that glass doors are permitted in glass walls, so long as the glass doors are sprinkler protected in a manner consistent with that provided for the glass wall.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ALER-G1-404.5.doc

G52–09/10
404.6 (New), 1022.1(IFC [B] 1022.1)

Proponent: David S. Collins, FAIA, The Preview Group, Inc., representing The American Institute of Architects

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

1. Add new text as follows:

404.6 Exit stairway. Up to 50 percent of the exits required by Section 1021 shall be permitted to be located within an atrium without enclosure required by Section 1022, provided:

1. The stairway discharges to the floor of the atrium;
2. The floor of the atrium is at the level of exit discharge and conforms with Section 1027.1; and
3. The footprint of the stairway when measured horizontally within the perimeter of the atrium floor opening shall not equal more than 25 percent of the area of the atrium on a per floor basis.

(Renumber subsequent sections)

2. Revise as follows:

1022.1 (IFC [B] 1022.1) Enclosures required. Interior exit stairways and interior exit ramps shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. Exit enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the exit enclosure shall include any basements but not any mezzanines. Exit enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours. Exit enclosures shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An exit enclosure shall not be used for any purpose other than means of egress.

Exceptions:

1. In all occupancies, other than Group H and I occupancies, a stairway is not required to be enclosed when the stairway serves an occupant load of less than 10 and the stairway complies with either Item 1.1 or 1.2. In all cases, the maximum number of connecting open stories shall not exceed two.
   1.1. The stairway is open to not more than one story above its level of exit discharge; or
   1.2. The stairway is open to not more than one story below its level of exit discharge.
2. Exit stairways in atriums conforming to Section 404.6 are not required to be enclosed.
~~2~~3. Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside need not be enclosed.
~~3~~4. Stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
~~4~~5. Stairways in open parking structures that serve only the parking structure are not required to be enclosed.
~~5~~6. Stairways in Group I-3 occupancies, as provided for in Section 408.3.8, are not required to be enclosed.
~~6~~7. Means of egress stairways as required by Sections 410.5.3 and 1015.6.1 are not required to be enclosed.
~~7~~8. Means of egress stairways from balconies, galleries or press boxes as provided for in Section 1028.5.1 are not required to be enclosed.

Reason: The atrium enclosure provides adequate protection for occupants of the building by providing fire suppression, smoke removal systems and provides additional features that a stair enclosure lacks; the ability to observe the environment in which the stair is located. It would be a simple matter to glance down into the atrium prior to mounting the stairs to see if there are problems associated with the environment, making the decision to use the atrium stair much simpler than a stair whose environment is unknown beyond the one visible flight of stairs.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: COLLINS-G4-404.6.doc

G53–09/10
406.1

Proponent: Daniel E. Nichols, PE, New York State Dept. of State, Div. of Code Enforcement and Administration

Revise as follows:

SECTION 406
MOTOR-VEHICLE RELATED OCCUPANCIES

406.1 General. Motor vehicle related occupancies shall comply with Sections 406.1 through 406.8 and the *International Fire Code, International Mechanical Code* and *International Fuel Gas Code*.

~~**406.3.2**~~ **406.2 Definitions.** The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

MECHANICAL-ACCESS OPEN PARKING GARAGES. *Open parking garages* employing parking machines, lifts, elevators or other mechanical devices for vehicles moving from and to street level and in which public occupancy is prohibited above the street level.

OPEN PARKING GARAGE. A structure or portion of a structure with the openings as described in Section 406.5.3 on two or more sides that is used for the parking or storage of private motor vehicles as described in Section 406.5.4.

RAMP-ACCESS OPEN PARKING GARAGES. *Open parking garages* employing a series of continuously rising floors or a series of interconnecting ramps between floors permitting the movement of vehicles under their own power from and to the street level.

~~**406.1**~~ **406.3 Private garages and carports.**

406.3.1 General. Private garages and carports shall comply with Sections 406.3.1 through 406.3.6.

(No change in text here or in the subsequent sections, except where shown.)

~~**406.1.1**~~ **406.3.2 Classification.**

~~**406.1.2**~~ **406.3.3 Area increase.**

~~**406.1.3**~~ **406.3.4 Garages and carports.**

~~**406.1.4**~~ **406.3.5 Separation**

~~**406.1.5**~~ **406.3.6 Automatic garage door openers.**

~~**406.2**~~ **406.4 Public parking garages.**

~~**406.2.1 Classification**~~ **406.4.1 General**. Parking garages other than private parking garages, shall be classified as public parking garages and shall comply with the provisions of Sections 406.4.2 through 406.4.9 and shall be classified as either an open ~~as defined in Section 406.3,~~ parking garage or an enclosed parking garage ~~and shall meet appropriate criteria of Section 406.4~~. Open parking garages as defined in Section 406.2 shall also comply with Section 406.5. Enclosed parking garages shall also comply with Section 406.6. Also see Section 509 for special provisions for parking garages.

~~**406.2.2**~~ **406.4.2 Clear height.**

~~**406.2.3**~~ **406.4.3 Guards.**

~~**406.2.4**~~ **406.4.4 Vehicle barrier systems.**

~~**406.2.5**~~ **406.4.5 Ramps.**

~~406.2.6~~ 406.4.6 **Floor surface.**

~~406.2.7~~ 406.4.7 **Mixed occupancy separation.**

~~406.2.8~~ 406.4.8 **Special hazards.**

~~406.2.9~~ 406.4.9 **Attached to rooms.**

~~406.3~~ 406.5. **Open parking garages.**

~~**406.3.1 Scope** Except where specific provisions are made in Sections 406.3.2 through 406.3.13, other requirements of this code shall apply.~~

406.5.1 General Open parking garages shall comply with Sections 406.5.2 through 406.5.12.

~~**406.3.2 Definitions**~~ (Text relocated to Section 406.2)

~~406.3.3~~ 406.5.2 **Construction.**

~~406.3.3.1~~ 406.5.3 **Openings.**

~~406.3.4~~ 406.5.4 **Uses.**

~~406.3.5~~ 406.5.5 **Area and height.**

TABLE ~~406.3.5~~ 406.5.5 OPEN PARKING GARAGES AREA AND HEIGHT

~~406.3.5.1~~ 406.5.5.1 **Single use.**

~~406.3.6~~ 406.5.6 **Area and height increases.**

~~406.3.7~~ 406.5.7 **Fire separation distance.**

~~406.3.8~~ 406.5.8 **Means of egress.**

~~406.3.9~~ 406.5.9 **Standpipes.**

~~406.3.10~~ 406.5.10 **Sprinkler systems.**

~~406.3.11~~ 406.5.11 **Enclosure of vertical openings.**

~~406.3.12~~ 406.5.12 **Ventilation.**

~~406.3.13~~ 406.5.13 **Prohibitions.**

~~406.4~~ 406.6 **Enclosed parking garages.**

406.6.1 General. Enclosed parking garages shall comply with Sections 406.6.1 through 406.6.3

~~406.4.1~~ 406.6.2 **Heights and areas.**

~~406.4.2~~ 406.6.3 **Ventilation.**

~~406.5~~ 406.7 **Motor fuel-dispensing facilities.**

~~**406.5.1 Construction**~~ **406.7.1 General.** Motor fuel dispensing facilities shall ~~be constructed in accordance~~ comply with the *International Fire Code* and Sections ~~406.5.1 through 406.5.3~~.406.7.2 through 406.7.3.

~~406.5.2~~ 406.7.2 **Vehicle fueling pad.**

~~406.5.3~~ 406.7.3 **Canopies.**

~~406.5.3.~~1 406.7.3.1 Canopies used to support gaseous hydrogen systems.

~~406.6~~ 406.8 Repair Garages.

~~406.6.1~~ 406.8.1 General.

~~406.6.2~~ 406.8.2 Mixed uses.

~~406.6.3~~ 406.8.3 Ventilation.

~~406.6.4~~ 406.8.4 Floor surface.

~~406.6.5~~ 406.8.5 Heating equipment.

[F] ~~406.6.6~~ 406.8.6 Gas detection system.

[F] ~~406.6.6.1~~ 406.8.6.1 System design.

[F] ~~406.6.6.2~~ 406.8.6.2 Operation.

[F] ~~406.6.6.3~~ 406.8.6.3 Failure of the gas detection system.

Reason: This is primarily a reformat similar to the reformat of Section 412 Aircraft Related occupancies, which occurred for the 2009 code. It is also making clear there relationship between the various sections on parking. It also provides consistent format for each subcategory such that each set of requirements starts with a General section. Some of these are new, some are revised sections that had different titles. Finally, there are key provisions in the other I-Code which apply to these occupancies. Only a few are listed and many are not. For example the Fuel Gas code requires appliances located in private garages to have the flame at least 18 inches above the floor. While that is hinted at in 406.2.8, that section doesn't cover the private garages. The existing Section 406 has sections on private garages and then simply 'parking garages'. Parking garages are then distinguished whether they are open or enclosed. Thi s change proposes to call all garages that are not private garages as 'public' garages'. This is not to imply that they are all open to the public, but just as a comparison to private garages. The actual distinction between private garages and others is primarily size. Perhaps the proper titles of Sections 406.3 and 406.4 should be "Small parking garages" and "Big parking garages', respectively.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: NICHOLS-G2-406.1.doc

G54–09/10

406.1 (New), 406.2 (New), 406.2.1, 406.3.1, 406.3.2

Proponent: Donald R. Monahan, PE, Walker Parking Consultants, representing the National Parking Association and the Automated & Mechanical Parking Association

1. Add new text as follows:

SECTION 406
MOTOR-VEHICLE-RELATED OCCUPANCIES

406.1 General. Motor –vehicle related occupancies shall comply with Sections 406.1 through 406.8 and other applicable provisions of this code, the *International Fire Code* and *International Mechanical Code.*

406.2 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

PARKING GARAGE. A building, structure, or portion thereof used for the parking, storage, or both, of motor vehicles less than 6500 lbs empty curb weight.

PARKING GARAGE, OPEN. A parking garage that meets the requirements of Section 406.3.

PARKING GARAGE, ENCLOSED. Any parking garage that is not an open parking garage.

PARKING GARAGE, RAMP TYPE. A parking garage that utilizes sloped floors for vertical vehicle circulation.

PARKING GARAGE, ASSISTED MECHANICAL TYPE. A parking garage that uses lifts or other mechanical devices to transport vehicles to the upper or lower floors of a parking garage, where the vehicles are then parked by an attendant.

PARKING GARAGE. AUTOMATED MECHANICAL TYPE. A parking garage that utilizes computer-controlled machines to store and retrieve vehicles, without drivers, in multi-level storage bays.

(Renumber subsequent sections)

2. Delete without substitution as follows:

406.2 Parking garage

~~**406.2.1 Classification.** Parking garages shall be classified as either open, as defined in Section 406.3, or enclosed and shall meet the appropriate criteria in Section 406.4. Also see Section 509 for special provisions for parking garages.~~

(Renumber subsequent sections)

3. Revise as follows:

406.3 Open parking garages.

406.3.1 Scope. Except where specific provisions are made in Sections 406.3.2 through ~~406.3.13~~ 406.3.12, other requirements of this code shall apply.

4. Delete text as follows:

~~**406.3.2 Definitions.** The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.~~

~~**MECHANICAL-ACCESS OPEN PARKING GARAGES.** *Open parking garages* employing parking machines, lifts, elevators or other mechanical devices for vehicles moving from and to street level and in which public occupancy is prohibited above the street level.~~

~~**OPEN PARKING GARAGE.** A structure or portion of a structure with the openings as described in Section 406.3.3.1 on two or more sides that is used for the parking or storage of private motor vehicles as described in Section 406.3.4.~~

~~**RAMP-ACCESS OPEN PARKING GARAGES.** *Open parking garages* employing a series of continuously rising floors or a series of interconnecting ramps between floors permitting the movement of vehicles under their own power from and to the street level.~~

(Renumber subsequent sections)

Reason: Section 406 applies to parking garages in general. Therefore, the different types of parking garages should be defined in this section. Listing the definitions under Section 406.3 is inappropriate as that section is a special subset of parking garages that only applies to Open Parking Garages. In particular, it is necessary to define the different types of mechanical access garages, as some types of mechanical access garages use freight elevators to lift a vehicle to another floor where it is then parked by an attendant. Therefore, ventilation of vehicle emissions is important for that type of garage. However, automated, mechanical access parking garages are finding their way into the U.S. market from Europe and Asia. These garages use computer-controlled machines to store and retrieve vehicles without the vehicle engine running and without human intervention. The vehicles are stored in an unoccupied, enclosed storage vault. Therefore, the life safety provisions inside that unoccupied storage vault are considerably different than in an occupied space. Only access by maintenance personnel and firefighter personnel is required in the storage vault. Ventilation of vehicle emissions is not required. These garages are not defined in the current building code. Further, up to double the number of vehicles can be accommodated in automated mechanical garages so they represent “Green” design in addition to the reduction in vehicle emissions that make this type of garage greener than traditional garages.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MONAHAN-G4-406.2.1

G55–09/10
406.1.4

Proponent: Jeff Inks, representing the Window and Door Manufacturers Association (WDMA)

Revise as follows:

406.1.4 Separation. Separations shall comply with the following:

1. The private garage shall be separated from the *dwelling unit* and its *attic* area by means of a minimum 1/2-inch (12.7 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than a 5/8-inch Type X gypsum board or equivalent. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1 3/8 inches (34.9 mm) thick, or doors in compliance with Section 715.4.3 with a minimum fire protection rating of 20 minutes. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Doors shall be self-closing and self-latching.
2. Ducts in a private garage and ducts penetrating the walls or ceilings separating the dwelling unit from the garage shall be constructed of a minimum 0.019-inch (0.48 mm) sheet steel and shall have no openings into the garage.
3. A separation is not required between a Group R-3 and U carport, provided the carport is entirely open on two or more sides and there are not enclosed areas above.

Reason: This section of the IBC implies that doors in compliance with Section 715.4.3 are to have a 20 minute fire protection rating. However, the language here and in Section 715.4.3 doesn't explicitly require that performance rating. This proposal addresses this oversight and is essentially an editorial improvement to this section of the IBC.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: WOESTMAN-INKS-G1-406.1.4

G56–09/10
406.1.4. IRC R302.6

Proponent: Dennis Richardson PE, dbr group inc., representing self

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC GENERAL

Revise as follows:

406.1.4 Separation. Separations shall comply with the following:

1. The private garage shall be separated from the *dwelling unit* ~~and~~ including its *attic* area by means of gypsum board, or its equivalent, applied to the wall and ceiling surfaces on the garage side. ~~a~~ A minimum of 1/2-inch (12.7 mm) gypsum board shall be applied to ~~the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by~~ wall surfaces of the separation or to protect members supporting the ceiling separation and not less than a 5/8-inch (15.9 mm) Type X gypsum board ~~or equivalent~~ shall be applied to form the ceiling surfaces of the separation. The wall and ceiling surfaces as applicable shall combine to form a complete separation between the garage and any habitable areas of the dwelling unit, including its attic area. Door openings between a private garage and the d*welling unit* shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1 3/8 inches (34.9 mm) thick, or doors in compliance with Section 715.4.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Doors shall be self-closing and self-latching.
2. Ducts in a private garage and ducts penetrating the walls or ceilings separating the *dwelling unit*, including its *attic* area, from the garage shall be constructed of a minimum 0.019-inch (0.48 mm) sheet steel and shall have no openings into the garage.
3. A separation is not required between a Group R-3 and U carport, provided the carport is entirely open on two or more sides and there are not enclosed areas above.

PART II – IRC BUILDING/ENERGY

Revise as follows:

R302.6 Dwelling/garage fire separation. The garage shall be separated by wall and ceiling surfaces combined as applicable to form a complete separation between the garage and any habitable areas of the dwelling unit, including its attic area as required by Table R302.6. Openings in garage walls shall comply with Section R302.5. This provision does not apply to garage walls that are perpendicular to the adjacent *dwelling unit* wall unless providing support for ceilings or members used as part of the separation required by this section.

TABLE R302.6
DWELLING/GARAGE SEPARATION

SEPARATION	MATERIAL
~~From the residence and attics~~ Wall surfaces	Not less than ½-inch gypsum board or equivalent applied to the garage side of walls
~~From all habitable rooms above the garage~~ Ceiling surfaces	Not less than 5/8-inch Type X gypsum board or equivalent applied to the garage ceiling
Structure(s) supporting ~~floor/~~ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent applied to the wall or structural members.
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 1/2-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

Reason: (IBC) The current language in section 406.1.4 does not adequately convey the intent of this section which is to provide a complete separation between garage areas and any habitable areas of the dwelling unit including its attic and to provide protection of walls and members providing support of assemblies used for this separation. The existing language is also confusing because it refers to "garages beneath habitable rooms shall be separated from all habitable rooms above by not less than a 5/8-inch (15.9 mm) Type X gypsum board or equivalent" but fails to describe what to do if the ceiling surface forming the attic space above the garage is utilized fully or partially to form the separation and if the habitable rooms are offset but contiguous to the attic space above the garage.

The proposed language is superior to the existing language because it clarifies there is to be a complete separation including members providing support of the separation which is consistent with the IRC. The proposed language also makes it clear that all ceiling surfaces that are utilized as part of the separation are to be protected by an equivalent of 5/8" type x gypsum board regardless if they are located directly below the habitable room or not. The added strength and fire resistance of 5/8" gypsum board is appropriate in all portions of the separation where gypsum board is applied on horizontal or sloped ceiling surfaces where the gypsum board must support its own weight as well as insulation resting on it while being exposed to a fire directly below.

(IRC) The current language in section R302.6 and Table R302.6 does not adequately convey the intent of this section which is to provide a complete separation between garage areas and any habitable areas of the dwelling unit including its attic. The existing language is confusing because it refers to separations "From all habitable rooms above the garage" is to be separated by "not less than 5/8-inch (15.9 mm) Type X gypsum board or equivalent" but fails to describe what to do if the ceiling surface forming the attic space above the garage is utilized fully or partially to form the separation and if the habitable rooms are offset but contiguous to the attic space above the garage.

The proposed language is superior to the existing language because it clarifies there is to be a complete separation. The proposed language also makes it clear that all ceiling surfaces that are utilized as part of the separation are to be protected by an equivalent of 5/8" type x gypsum board regardless if they are located directly below the habitable room or not. The added strength and fire resistance of 5/8" gypsum board is appropriate in all portions of the separation where gypsum board is applied on horizontal or sloped ceiling surfaces where the gypsum board must support its own weight as well as insulation resting on it while being exposed to a fire directly below.

The proposed language also clarifies walls that are perpendicular to the dwelling unit wall must be protected if they provide support to ceilings or members used as part of this separation.

Cost Impact: (IBC) The code change proposal will increase the cost of construction. This proposal would increase the cost of construction if the current language is interpreted as not requiring the protection of elements supporting the separation. Otherwise this proposed change clarifies the designer has the option to utilize the garage ceiling as part of the separation even when the second floor is not located directly above the garage. When the designer has options there is an opportunity for cost savings.

(IRC) The proposed change clarifies the designer has the option to utilize the garage ceiling as part of the separation even when the second floor is not located directly above the garage. When the designer has options there is an opportunity for cost savings.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC BUILDING/ENERGY

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RICHARDSON-G2-406.1.4

G57–09/10
406.2.2

Proponent: Donald R. Monahan/Walker Parking Consultants/Representing National Parking Association, and Automated & Mechanical Parking Association

Revise as follows:

406.2.2 Clear Height. The clear height of each floor level in vehicle and pedestrian traffic areas shall not be less than 7 feet (2134 mm). Vehicle and pedestrian areas accommodating van accessible parking required by Section 1106.5 shall conform to ICC A117.1.

> **Exception:** A lower clear height is allowed in computerized, mechanical-access parking structures equipped with sensors to measure the dimensions of vehicles at entry prior to activation of the storage machinery. Clear height shall not be less than 5 feet (1524 mm). The machinery shall not activate when over-size vehicles are detected.

Reason: Automated parking systems that utilize computer-controlled machines to store and retrieve vehicles are finding their way into the U.S. market from Europe and Asia. Analysis of vehicle dimensions by the Parking Consultants Council of the National Parking Association indicates that 53 percent of vehicles on the road are less than 5-feet high and 83 percent of vehicles are less than 6-feet high. In an automated, mechanical-access garage, sensors are used to measure vehicles and computers are used to sort vehicles to prescribed compartments according to size. Therefore, it is possible to customize different levels in the storage vault for different height vehicles. Also, the public is prohibited from entering the vehicle storage vault where the low clearance vehicle compartments are located.

Cost Impact: The code change proposal will not increase the cost of construction. The lower clear height in an automated parking facility will reduce the construction cost.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MONAHAN-G1-406.2.2.doc

G58–09/10
406.3.2

Proponent: Daniel E. Nichols, PE, New York State Div. of Code Enforcement and Administration

Revise as follows:

406.3.2 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meaning shown herein.

OPEN PARKING GARAGE. A structure or portion of a structure with the openings as described in Section 406.3.3.1 ~~on two or more sides~~ that is used for the parking or storage of private motor vehicles as described in Section 406.3.4.

Reason: Section 406.3.3.1 permits the use of only one side as appropriate openings in the exception on Section 406.3.3.1. The definition is in conflict with the code requirements referenced therein.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: NICHOLS-G4-406.3.2.doc

G59–09/10
406.3.3.1

Proponent: Jason J. Krohn, P.E., Precast/Prestressed Concrete Institute

Revise as follows:

406.3.3.1 Openings. For natural ventilation purposes, the exterior side of the structure shall have ~~uniformly~~ distributed openings on two or more sides. The area of ~~such~~ the openings in exterior walls on a tier ~~must~~ shall be at least 20 percent of the total perimeter wall area of each tier~~.~~ and shall comply with one of the following:

1. The aggregate length of the openings considered to be providing natural ventilation shall constitute a minimum of 40 percent of the perimeter of the tier, or
2. The openings shall be distributed around at least 40 percent of the perimeter distance, whereby no portion of the perimeter distance shall be counted when it is further than 6 feet (1829 mm) from an opening, and each opening shall be a least 30 inches (762 mm) in the smallest dimension.

Interior walls shall be at least 20 percent open with uniformly distributed openings.

Exception: Openings are not required to be distributed over 40 percent of the building perimeter where the required openings are uniformly distributed over two opposing sides of the building.

Reason: The current IBC wording for the 40 percent requirement does not reflect what the current IBC commentary describes. The IBC states "*The aggregate length of the openings considered to be providing natural ventilation shall constitute a minimum of 40 percent of the perimeter of the tier.*" The commentary states "This section requires that 40 percent of the building perimeter have openings that are uniformly distributed on no less than two sides of the structure". Previous model codes such as the Standard Building Code stated "*required openings must be distributed along at least 40% of the building perimeter".* We believe the intent of the IBC is to assure that the openings used for natural ventilation be distributed over 40 percent of the building perimeter, not that the sum of their lengths be 40 percent of the perimeter. This change in wording has a significant impact on a "punched opening" parking garage. The figures below show two garages with the same size openings. Since the openings are the same size, they both achieve the 20 percent openness requirement. However, by rotating the openings 90 degrees, one of the garages does not meet the "aggregate length of at least 40 percent of the building perimeter" so it would not be considered an "open" parking garage.

Language is included stating that a designer will not be allowed to count any portion of the exterior that is 6'-0" from an opening and that such openings must be at least 30" in each direction. The selection of 30" was somewhat arbitrary, but has been used in other sections of fire codes. The logic was that fire personnel can access through an opening this size or larger. It is felt that this definition was necessary to preclude a designer from placing a very small opening (4" square for example) every 12'-0" or so, to meet the perimeter distance requirement.

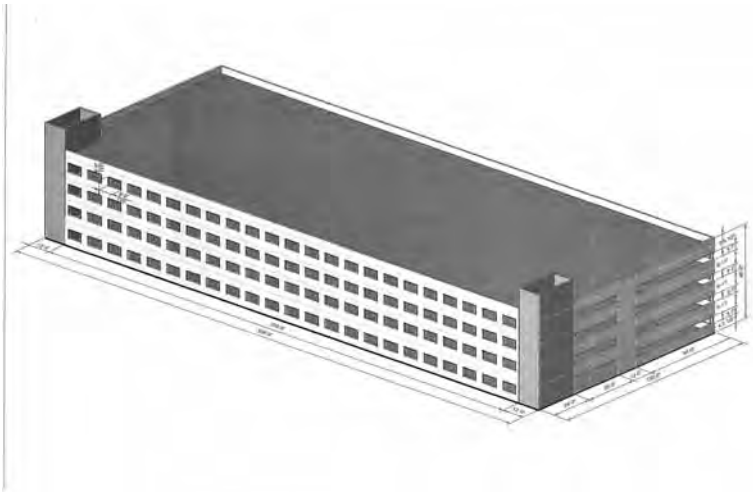


Figure 1: Spandrel type parking garage

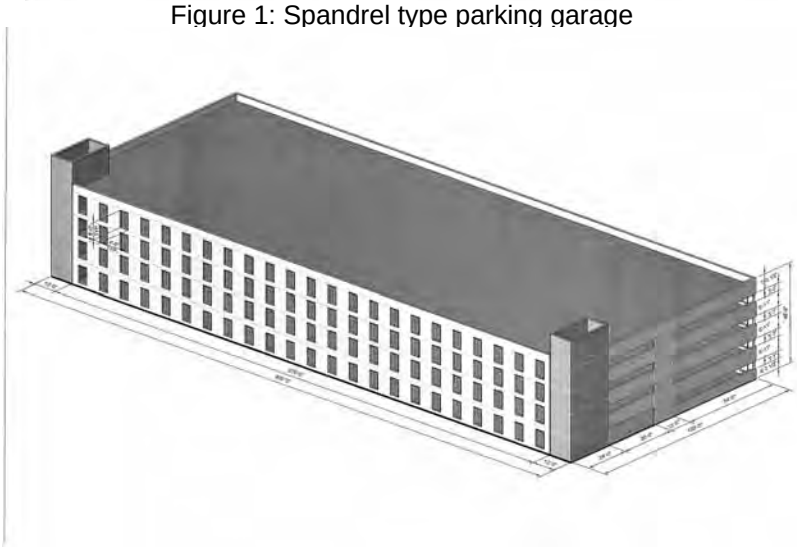


Figure 2: Punched opening parking garage

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KROHN-G1-406.3.3.1

G60–09/10
406.3.3.1.1 (New)

Proponent: Daniel E. Nichols, PE, New York State Div. of Code Enforcement and Administration

Add new text as follows:

406.3.3.1.1 Openings below grade. Where openings below grade provide required natural ventilation, the outside horizontal clear space measured perpendicular to the opening shall be one and one-half times the depth of the opening. The depth of the opening shall be measured from the average adjoining ground level to the bottom of the opening.

Reason: One of the main differences between open parking garages and enclosed garages is the ability of the openness on one or two walls to provide adequate natural ventilation. IBC Section 406.3.1.1 clearly states in the section that the openness is for natural ventilation purposes. This is supported by the IMC being completely silent on any requirements for ventilation in an open parking garage.

Open parking garages are generally separated from a surrounding structure due to limitations of fire separation distance (10 feet). However, fire separation distance isn't needed from grades and retaining walls. A condition has been experienced where an open parking garage has been built into a steep grade, and the openings are provided. In one case, a retaining wall is 5 feet away from the exterior wall of the open parking garage and the vertical distance from the lowest level of the open parking garage to the top of the wall is approximately 50 feet.

IBC Section 1203 has requirements for the use of below ground openings being used for natural ventilation. This proposal uses the exact language in Section 1203 to provide recognized design standards for below ground openings.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: NICHOLS-G1-406.3.3.1.1.doc

G61–09/10
406.3.6

Proponent: Jason J. Krohn, PE, Precast/Prestressed Concrete Institute

Revise as follows:

406.3.6 Area and height increases. The allowable area and height of *open parking garages* shall be increased in accordance with the provisions of this section and Sections 504 and 506. Garages with sides open on three-fourths of the building's perimeter are permitted to be increased by 25 percent in area and one tier in height. Garages with sides open around the entire building's perimeter are permitted to be increased by 50 percent in area and one tier in height. For a side to be considered open under the above provisions, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier.

Allowable tier areas in Table 406.3.5 shall be increased for *open parking garages* constructed to heights less than the table maximum. The gross tier area of the garage shall not exceed that permitted for the higher structure. At least three sides of each such larger tier shall have continuous horizontal openings not less than 30 inches (762 mm) in clear height extending for at least 80 percent of the length of the sides and no part of such larger tier shall be more than 200 feet (60 960 mm) horizontally from such an opening. In addition, each such opening shall face a street or *yard* accessible to a street with a width of at least 30 feet (9144 mm) for the full length of the opening, and standpipes shall be provided in each such tier.

Open parking garages of Type II construction, with all sides open, shall be unlimited in allowable area where the *building height* does not exceed 75 feet (22 860 mm). For a side to be considered open, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier. All portions of tiers shall be within 200 feet (60 960 mm) horizontally from such openings or other natural ventilation openings as defined in Section 406.3.3.1. These openings shall be permitted to be provided in *courts* with a minimum dimension of 20 feet (6096 mm) for the full width of the openings.

Reason: The only section that currently allows for height and area increases to Table 406.3.5 is section 406.3.6. This section gives increases to Table 406.3.5 but they are related to "openness". This section does not give increases for automatic sprinkler systems or building frontage as is allowed by sections 504 and 506 to Table 503 which must be used for "enclosed" parking garages. This means that it is possible to have an "enclosed" parking garage with bigger area per floor than an "open" parking garage.

Sections 406.3.5, 406.3.5.1, and 406.3.6 set the limitations for the Heights and Areas of open parking garages. The logic presumably is that an open garage can be constructed to a greater area per floor for a given construction type than an enclosed garage. However, enclosed parking garage floor areas are able to be increased for multi-story parking garages by 200 percent provided they are sprinklered. No such area increase is allowed for open parking garages. Consequently, an enclosed, sprinklered parking garage of Type IIA can be constructed to 39,000 sf + (200%* 39,000 sf) = 117,000 sf per floor. While an open parking garage of Type IIA construction can be constructed to only 50,000 sf per floor, regardless of whether or not it has fire sprinklers. Therefore, the requirements for the open parking garage are far more stringent under this scenario. Other height and area increases are allowed as outlined in section 406.3.6, yet none allow any additional increase for fire sprinklers as is allowed for almost all other structures.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KROHN-G2-406.3.6

G62–09/10
406.3.6

Proponent: Jason J. Krohn, PE, Precast/Prestressed Concrete Institute

Revise as follows:

406.3.6 Area and height increases. The allowable area and height of *open parking garages* shall be increased in accordance with the provisions of this section. Garages with sides open on three-fourths of the building's perimeter are permitted to be increased by 25 percent in area and one tier in height. Garages with sides open around the entire building's perimeter are permitted to be increased by 50 percent in area and one tier in height. For a side to be considered open under the above provisions, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier. For purposes of calculating the interior area of the side, the height shall not exceed 7 feet (2134 mm).

Allowable tier areas in Table 406.3.5 shall be increased for *open parking garages* constructed to heights less than the table maximum. The gross tier area of the garage shall not exceed that permitted for the higher structure. At least three sides of each such larger tier shall have continuous horizontal openings not less than 30 inches (762 mm) in clear height extending for at least 80 percent of the length of the sides and no part of such larger tier shall be more than 200 feet (60 960 mm) horizontally from such an opening. In addition, each such opening shall face a street or *yard* accessible to a street with a width of at least 30 feet (9144 mm) for the full length of the opening, and standpipes shall be provided in each such tier.

Open parking garages of Type II construction, with all sides open, shall be unlimited in allowable area where the *building height* does not exceed 75 feet (22 860 mm). For a side to be considered open, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier. For purposes of calculating the interior area of the side, the height shall not exceed 7 feet (2134 mm). All portions of tiers shall be within 200 feet (60 960 mm) horizontally from such openings or other natural ventilation openings as defined in Section 406.3.3.1. These openings shall be permitted to be provided in *courts* with a minimum dimension of 20 feet (6096 mm) for the full width of the openings.

Reason: Currently, the IBC does not include a definition of "interior area of the side". Consequently, the interior area values have been interpreted differently by building officials in various jurisdictions. To clarify the code, a value of 7 feet is added for the height dimension of interior area. This value of 7 feet is consistent with the minimum height requirement of Sections 406.2.2 and 406.3.5.1.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KROHN-G3-406.3.6

G63–09/10
406.3.6

Proponent: Donald R. Monahan, PE, Walker Parking Consultants, representing the National Parking Association and the Automated & Mechanical Parking Association

Revise as follows:

406.3.6 Area and height increases. The allowable area and height of open parking garages shall be increased in accordance with the provisions of this section. Garages with sides open on three-fourths of the building's perimeter are permitted to be increased by 25 percent in area and one tier in height. Garages with sides open around the entire building's perimeter are permitted to be increased by 50 percent in area and one tier in height. For a side to be considered open under the above provisions, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier.

Allowable tier areas in Table 406.3.5 shall be increased for open parking garages constructed to heights less than the table maximum. The gross tier area of the garage shall not exceed that permitted for the higher structure. At least three sides of each such larger tier shall have continuous horizontal openings not less than 30 inches (762 mm) in clear height extending for at least 80 percent of the length of the sides and no part of such larger tier shall be more than 200 feet (60 960 mm) horizontally from such an opening. In addition, each such opening shall face a street or yard accessible to a street with a width of at least 30 feet (9144 mm) for the full length of the opening, and standpipes shall be provided in each such tier.

Open parking garages of Type II construction, with all sides open, shall be unlimited in allowable area where the building height does not exceed 75 feet (22 860 mm). For a side to be considered open, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier. All portions of tiers shall be within 200 feet (60 960 mm) horizontally from such openings or other natural ventilation openings as defined in Section 406.3.3.1. These openings shall be permitted to be provided in courts with a minimum dimension of 20 feet (6096 mm) for the full width of the openings.

<u>The interior area as used in the paragraphs above shall mean the clear height from the floor to the bottom of the structural frame above times the length of a side.</u>

Reason: There is no definition in the IBC for the interior area. As a result, the interior area has been interpreted differently by many building officials. Since the structural frame inhibits air flow through the garage, the natural ventilation is then accommodated by the clear distance from the floor to the bottom of the structural frame above such that the required opening on each side should be a function of that clear height.

Cost Impact: The code change proposal will not increase the cost of construction. Cost savings as a result of allowing Type II construction with increased height and area as a result of increased openness versus needing Type I construction with higher fire rating.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MONAHAN-G2-406.3.6

G64–09/10
IBC 406.7 (New), IFC 2303.2

Proponent: Donald R. Monahan, PE, Walker Parking Consultants, representing the National Parking Association and the Automated & Mechanical Parking Association

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IBC GENERAL COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THE IBC GENERAL COMMITTEE.

PART I – IBC GENERAL

1. Add new section as follows:

<u>406.7 Parking garages, automated mechanical type.</u>

<u>406.7.1 General.</u> <u>Automated mechanical type parking garages shall comply with Sections 406.7.1 through 406.7.3.</u>

406.7.2 Construction. The storage vault enclosure is classified as a high-bay storage warehouse for motor vehicles, and shall meet the requirements of Chapter 23 of the *International Fire Code*.

406.7.3 Storage Racks. The storage racks shall consist of non-combustible construction. Steel storage racks shall designed in accordance with Section 2208.

PART II – IFC

Revise text as follows:

2303.2 Class I commodities. Class I commodities are essentially noncombustible products on wooden or nonexpanded polyethylene solid deck pallets, in ordinary corrugated cartons with or without single-thickness dividers, or in ordinary paper wrappings with or without pallets. Class I commodities are allowed to contain a limited amount of Group A plastics in accordance with Section 2303.7.4. Examples of Class I commodities include, but are not limited to, the following:

Alcoholic beverages not exceeding 20-percent alcohol
Appliances noncombustible, electrical
Cement in bags
Ceramics
Dairy products in nonwax-coated containers (excluding bottles)
Dry insecticides
Foods in noncombustible containers
Fresh fruits and vegetables in nonplastic trays or containers
Frozen foods
Glass
Glycol in metal cans
Gypsum board
Inert materials, bagged
Insulation, noncombustible
Motor vehicles less than 6500 pounds empty curb weight
Noncombustible liquids in plastic containers having less than a 5-gallon (19 L) capacity
Noncombustible metal products

Reason: (IBC) Automated, mechanical-access parking garages are finding their way into the U.S. market from Europe and Asia. These facilities utilize computer-controlled machines and lifts to store and retrieve vehicles on a platform without the engine running and without human intervention in an unoccupied, high-bay storage vault. They have unique fire and life safety issues and as such need a separate code section to define the code requirements for these unique facilities.

(IFC) Automated, mechanical-access parking garages are finding their way into the U.S. market from Europe and Asia. These facilities utilize computer-controlled machines and lifts to store and retrieve vehicles without the engine running and without human intervention in an unoccupied, high-bay storage vault. They have unique fire and life safety issues that are similar to high piled storage of commodities covered by Chapter 23 of the IFC and therefore should be included in this Chapter. The reference below indicates that the amount of combustibles in a typical passenger vehicle is less than 5 pounds per sf, which then classifies passenger vehicles as low hazard in accordance with NIST standards and qualifies as a Class I commodity in this section.

References: *Parking Structure Fires* by the Parking Consultants Council of the National Parking Association, Washington, DC, December 2008

Cost Impact: The code change proposal will not increase the cost of construction.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART I – IFC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MONAHAN-G5-406.7 NEW (Pt II F2-2303.2)

G65–09/10

407, 1008.1.9.6 (IFC [B] 1008.1.8.6), 1106.3, 1106.4, Table 1604.5, Table [P] 2902.1 (IPC Table 403.1)

Proponent: Paul K. Heilstedt, PE, Chair, representing ICC Code Technology Committee (CTC)

Revise as follows:

SECTION 407
GROUP I-2

407.1 General. Occupancies in Group I-2 shall comply with the provisions of Sections 407.1 through 407.9 and other applicable provisions of this code.

407.2 Corridors. Corridors in occupancies in Group I-2 shall be continuous to the exits and separated from other areas in accordance with Section 407.3 except spaces conforming to Sections 407.2.1 through 407.2.4.

407.2.1 Waiting and similar areas. Waiting areas and similar spaces constructed as required for corridors shall be permitted to be open to a corridor, only where all of the following criteria are met:

1. The spaces are not occupied for ~~patient~~ care recipient's sleeping units, treatment rooms, hazardous or incidental accessory occupancies in accordance with Section 508.2.
2. The open space is protected by an automatic fire detection system installed in accordance with Section 907.
3. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic fire detection system installed in accordance with Section 907, or the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
4. The space is arranged so as not to obstruct access to the required exits.

407.2.2 ~~Nurses'~~ Care providers' stations. Spaces for care providers', supervisory staff, doctors' and nurses' charting, communications and related clerical areas shall be permitted to be open to the corridor, when such spaces are constructed as required for corridors.

407.2.3 ~~Mental health~~ Psychiatric treatment areas. Areas wherein ~~mental health~~ psychiatric ~~patient~~ care recipient's who are not capable of self-preservation are housed, or group meeting or multipurpose therapeutic spaces other than incidental accessory occupancies in accordance with Section 508.2.5, under continuous supervision by facility staff, shall be permitted to be open to the corridor, where the following criteria are met:

1. Each area does not exceed 1,500 square feet (140 m^2),
2. The area is located to permit supervision by the facility staff.
3. The area is arranged so as not to obstruct any access to the required exits.
4. The area is equipped with an automatic fire detection system installed in accordance with Section 907.2.
5. Not more than one such space is permitted in any one smoke compartment.
6. The walls and ceilings of the space are constructed as required for corridors.

407.2.4 Gift shops. Gift shops and associated storage that are less than 500 square feet (455 m^2) in area shall be permitted to be open to the corridor ~~provided the gift shop and storage areas are fully sprinklered and storage areas are protected in accordance with Section 508.2.5~~ when such spaces are constructed as required for corridors.

407.3 Corridor walls. Corridor walls shall be constructed as smoke partitions in accordance with Section 711.

407.3.1 Corridor doors. Corridor doors, other than those in a wall required to be rated by Section 508.2.5 or for the enclosure of a vertical opening or an exit, shall not have a required fire protection rating and shall not be required to be equipped with self-closing or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. Roller latches are not permitted. Other doors shall conform to Section 715.4.

407.3.2 Locking devices. Locking devices that restrict access to the ~~patient~~ care recipient's room from the corridor, and that are operable only by staff from the corridor side, shall not restrict the means of egress from the ~~patient~~ care recipient's room.

Exceptions:

1. This section shall not apply to rooms in psychiatric treatment and similar care areas.
2. Locking arrangements in accordance with Section 1008.1.9.6.

407.4 Smoke barriers. Smoke barriers shall be provided to subdivide every story used by ~~patients for~~ persons receiving care, ~~sleeping or~~ treatment or sleeping and to divide other stories with an occupant load of 50 or more persons, into at least two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m^2) and the travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be in accordance with Section 710.

407.4.1 Refuge area. ~~At least 30 net square feet (2.8m^2) per patient shall be provided the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas and other low-hazard areas on each side of each smoke barrier. On floors not housing patients confined to a bed or litter, at least 6 net square feel (0.56 m^2) per occupant shall be provided on each side of each smoke barrier for the total number of occupants in adjoining smoke compartments.~~ Refuge areas shall be provided within each smoke compartment. The size of the refuge area shall accommodate the occupants and care recipients from the adjoining smoke compartment. Where a smoke compartment is adjoined by two or more smoke compartments, the minimum area of the refuge area shall accommodate the largest occupant load of the adjoining compartments. The size of the refuge area shall provide the following:

1. A minimum of 30 net square feet (2.8m^2) per care recipient confined to bed or litter.
2. A minimum of 6 square feet (0.56m^2) per ambulatory care recipient not confined to bed or litter and for occupants.

Areas or spaces permitted to be included in the calculation of refuge area are corridors, sleeping areas, treatment rooms, lounge or dining areas and other low hazard areas.

407.4.2 Independent egress. A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated.

407.4.3 Horizontal assemblies. *Horizontal assemblies* supporting *smoke barriers* required by this section shall be designed to resist the movement of smoke and shall comply with Section 712.9.

[F] 407.5 Automatic sprinkler system. Smoke compartments containing ~~patient~~ sleeping units shall be equipped throughout with an automatic fire sprinkler system in accordance with Sections 903.3.1.1 and 903.3.2. ~~The smoke compartments shall be equipped with *approved* quick-response or residential sprinklers in accordance with Section 903.3.2.~~

[F] 407.6 Fire alarm system. A fire alarm system shall be provided in accordance with Section 907.2.6.

[F] 407.7 Automatic fire detection. Corridors in nursing homes ~~(both intermediate care and skilled nursing facilities)~~, long-term care facilities, detoxification facilities and spaces permitted to be open to the corridors by Section 407.2 shall be equipped with an automatic fire detection system. Hospitals shall be equipped with smoke detection as required in Section 407.2.

Exceptions:

1. Corridor smoke detection is not required where ~~patient~~ sleeping units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each ~~patient~~ sleeping unit and an audible and visual alarm at the ~~nursing~~ care provider's station attending each unit.
2. Corridor smoke detection is not required where ~~patient~~ sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

407.8 Secured yards. Grounds are permitted to be fenced and gates therein are permitted to be equipped with locks, provided that safe dispersal areas having 30 net square feet (2.8 m^2) for bed and litter ~~patients~~ care recipients and 6 net square feet (0.56 m2) for ambulatory ~~patients~~ care recipients and other occupants are located between the building and the fence. Such provided safe dispersal area shall not be located less than 50 feet (15 240 mm) from the building they serve.

407.9 Hyperbaric facilities. Hyperbaric facilities in Group I-2 occupancies shall meet the requirements contained in Chapter 20 of NFPA 99.

1008.1.9.6 (IFC [B] 1008.1.9.6) Special locking arrangements in Group I-2. Approved special ~~delayed~~ egress locks shall be permitted in a Group I-2 occupancy where the clinical needs of persons receiving care require such locking. Special ~~Delayed~~ egress locks shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed ~~unlock~~ in accordance with Items 1 through ~~6~~ 7 below. ~~A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.~~

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center, a nursing station or other approved location.
4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.
5. ~~4.~~ The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the *International Fire Code*.
6. ~~5.~~ All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
7. ~~6.~~ Emergency lighting shall be provided at the door.

Exception: Items 1 through ~~3~~ 4 shall not apply to doors to areas where persons which because of clinical needs require restraint or containment as part of the function of a ~~mental hospital treatment facility~~ psychiatric treatment areas.

1106.3 Hospital outpatient facilities. At least 10 percent, but not less than one, of ~~patient~~ care recipient and visitor parking spaces provided to serve hospital outpatient facilities shall be *accessible*.

1106.4 Rehabilitation facilities and outpatient physical therapy facilities. At least 20 percent, but not less than one, of the portion of ~~patient~~ care recipient and visitor parking spaces serving rehabilitation facilities specializing in treating conditions that affect mobility and outpatient physical therapy facilities shall be *accessible*.

TABLE 1604.5
OCCUPANCY CATEGORY OF BUILDINGS AND OTHER STRUCTURES

OCCUPANCY CATEGORY	NATURE OF OCCUPANCY
III	Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to: • Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300. • Buildings and other structures containing elementary school, secondary school or day care facilities with an occupant load greater than 250. • Buildings and other structures containing adult education facilities, such as colleges and universities with an occupant load greater than 500. • Group I-2 occupancies with an occupant load of 50 or more resident ~~patients~~ care recipients but not having surgery or emergency treatment facilities. • Group I-3 occupancies. • Any other occupancy with an occupant load greater than 5,000a. • Power-generating stations, water treatment facilities for potable water, waste water treatment facilities and other public utility facilities not included in Occupancy Category IV. • Buildings and other structures not included in Occupancy Category IV containing sufficient quantities of toxic or explosive substances to be dangerous to the public if released.

(Portions of table not shown remain unchanged)

[P] TABLE 2902.1 (IPC TABLE 403.1)
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES[a]
(See Sections 2902.2 and 2902.3)

No.	CLASSIFICATION		OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2 OF THE INTERNATIONAL PLUMBING CODE)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS [e, f] (SEE SECTION410.1 OF THE INTERNATIONAL PLUMBING CODE)	OTHER
					MALE	FEMALE	MALE	FEMALE			
5		Institutional	I-2	Hospitals, ambulatory nursing home ~~patients~~ care recipient	1 per room		1 per room		1 per 15	1 per 100	1 service sink

(Portions of table not shown remain unchanged)

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April/2005, the CTC has held seventeen meetings - all open to the public.

This proposed change is a result of the CTC's investigation of the area of study entitled "Care Facilities". The scope of the activity is noted as:

Study issues associated with Day Care/Adult Care, Ambulatory Health Care and Assisted Living facilities with an emphasis on the number of occupants in relation to the supervision, and the determination of the resident's capability of responding to an emergency situation without physical assistance from the facility's supervision.

The Code Technology Committee Study Group on Care Facilities has conducted a comprehensive review of current building and fire codes, federal regulations and prior code change proposals dealing with the provision of "care". "Care" as it relates to the scope of this work relates to an occupant of a building who is compromised (mentally or physically) and receives some type of support (care). These facilities encompass a full spectrum of acuity and span a wide range of occupancy types including Groups B, E, I and R. On the lower end of the spectrum, occupants may be aged and receive occasional day living assistance such as cooking and cleaning. On the opposite end of the spectrum, occupants may be completely bedridden and dependant on medical gases and emergency power to maintain life.

The proposed changes provide clear direction for design and construction by using terms and concepts consistently and clearly identifying thresholds related to the condition of an occupant. Federal regulations and state licensing provisions were considered, but primarily in terms of avoiding conflicting requirements. It is not the intent of these changes to address licensing or operational issues. We do believe that the proposed changes will provide consistent and correlated language between these multiple sources of regulations that will help design and code professionals address the needs of care recipients in the many different types of facilities.

A major goal is to provide clarity and consistency of terminology. New definitions are added to specifically describe each type of care or facility and identify the distinct differences in these. Some terms are consolidated to be more descriptive of a group of occupants, yet generic enough to be used interchangeably. For example: a "Patient" is now identified as a "care recipient" and "nurse" is now "care provider". People receive care of varying types but they are not always referred to as "patients". They receive care from a wide range of persons with different technical abilities, not just a "nurse" or "staff". Other definitions address existing terms not defined within current code. The study group believes that these changes bring a practical response to the recent developments within the healthcare delivery system.

Day Care Facilities, Section 305.3 and related sections: This public comment represents the collaborative efforts of the CTC Study Group on Care to clarify the scope and intent of the code as it applies to the subject of when care is provided and what are the appropriate elements of the building code to address the risks associated with Day Care. Changes to modify the existing language include:

- Changing the provisions for religious educational facilities to become an exception.
- Adding a definition section for the educational group and moving the definition of personal care services from 310.2 to 305.2, clarifying the day care as a day care facility, and adding the correlation to classify that a Group E, day care facility with five or fewer is allowed in an R-3 or may be constructed per the IRC.
- Adding clarifications to the I-4 Group to include both adult and child day care services, and adding an exception for such services within a place of worship, and clarifying that day care facility with five or fewer is allowed in an R-3 or may be constructed per the IRC.
- Correlating the requirements for fire suppression in Chapter 9 with the provisions for day care.
- Clarifying the requirement for means of egress from day care where more than 10 children receive care.
- Removing the occupancy group designations from the scoping criteria in Chapter 11 as being unnecessary, C
- Clarifying that the plumbing table is applicable for day care, and that the exclusion for partitions is meant to apply to child day care, not all day care.

Issues concerning the multitude of occupancies, conflicting criteria and/or confusion between the occupancies identified as "Day Care vs. Child or Adult Day Care" were the initial impetus for the study of care. The overlap and inconsistencies for all types of care were eventually included once the true scope of the issues was recognized.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEILSTEDT-G1-407.doc

G66–09/10
407.3.1

Proponent: Robert J Davidson, Code Consultant, Alan Shuman, President, representing the National Association of State Fire Marshals (NASFM)

Revise as follows:

407.3 Corridor walls. *Corridor* walls shall be constructed as smoke partitions in accordance with Section 711.

407.3.1 Corridor doors. ~~*Corridor* doors, other than those in a wall required to be rated by Section 508.2.5 or for the enclosure of a vertical opening or an *exit*, shall not have a required *fire protection rating* and shall not be required to be equipped with self-closing or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. Roller latches are not permitted. Other doors shall conform to Section 715.4.~~ Doors in corridors shall comply with Section 715.4 in the following locations:

1. Doors located in a wall required to be rated by Section 508.2.5;
2. Doors opening into an enclosure of a vertical opening or an exit; and
3. Doors in corridors in assisted living facilities.

Doors in corridors not listed above shall not be required to have a fire protection rating and shall not be required to be equipped with self-closing or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. Roller latches are not permitted

Reason: This proposal takes the exception language found within the body of Section 407.3.1 and breaks it out into exceptions 1 and 2. Exception 3 is added to provide an appropriate level of protection for occupants of assisted living facilities, many of whom require assistance to evacuate. For this occupancy smoke migration must be controlled until the occupants can be evacuated and for the migration to be controlled the doors must self closing. The purpose of the rating is to recognize that fires starting in a patient's room must be contained until extinguished to protect the corridor and the remaining portions of the occupancy.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: This proposal is related to Davidson/Shuman proposal to Section 308 which relocates assisted living facilities from Group I-1 to the I-2 Occupancy category.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: DAVIDSON-SHUMAN-G3-407.3.1.doc

G67–09/10
410.2, 410.5.3, 410.6(New), 1009.7, 1015.6, 1015.6.1, 1022.1 (IFC [B] 1009.7, 1015.6, 1015.6.1, 1022.1)

Proponent: Ron Clements, Chesterfield County Virginia Building Inspection Department, representing self; Bill Conner, representing American Society of Theatre Consultants

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

1. Revise as follows:

SECTION 410
STAGES, ~~AND~~ PLATFORMS AND TECHNICAL PRODUCTION AREAS

410.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

~~**FLY GALLERY.** A raised floor area above a stage from which the movement of scenery and operation of other stage effects are controlled.~~

~~**GRIDIRON**. The structural framing over a stage supporting equipment for hanging or flying scenery and other stage effects.~~

TECHNICAL PRODUCTION AREA. Open elevated areas or spaces intended for entertainment technicians to walk on and occupy for servicing and operating entertainment technology systems and equipment. Galleries, including fly and lighting galleries, gridirons, catwalks, and similar areas are designed for these purposes.

(Remaining definitions are unchanged)

2. Delete text as follows:

~~**Section 410.5.3 Stage Exits**. At least one approved means of egress shall be provided from each side of the stage and from each side of the space under the stage. At least one means of escape shall be provided from each fly gallery and from the gridiron. A steel ladder, alternating tread stairway or spiral stairway is permitted to be provided from the gridiron to a scuttle in the stage roof.~~

3. Add text as follows:

410.6 Means of egress. Except as modified or as provided for in this section, the provisions of Chapter 10 shall apply.

410.6.1 Arrangement. Where two or more exits or exit access doorways are required per Section 1015.1 from the stage, at least one exit or exit access doorway shall be provided on each side of a stage.

410.6.2 Stairway and ramp enclosure. Stairways and ramps provided from stages, platforms and technical production areas are not required to be enclosed.

410.6.3 Technical production areas. Technical production areas shall be provided with means of egress andmeans of escape in accordance with Section 410.6.3.1 through 410.6.3.5.

410.6.3.1 Means of egress. At least one means of egress shall be provided from technical production areas.

410.6.3.2 Travel distance. The maximum length of exit access travel shall not exceed 300 feet (91.44 mm) for buildings without a sprinkler system and 400 feet (121.92 m) for buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

410.6.3.3 Two means of egress. Where two means of egress are required the common path of travel shall not exceed 100 feet (30.48 m).

Exception: A means of escape to a roof in place of a second means of egress is permitted.

410.6.3.4 Path of egress travel. The following exit access components are permitted when serving technical production areas:

1. Stairways
2. Ramps
3. Spiral stairways
4. Catwalks
5. Alternating tread devices
6. Permanent ladders

410.6.3.5 Width. The path of egress travel within and from technical support areas shall be a minimum of 22 inches (559 mm).

(Renumber subsequent sections)

4. Revise as follows:

1009.7 Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet (3658 mm) between floor levels or landings.

Exceptions:

1. Aisle stairs complying with Section 1028.
2. Alternating tread devices used as a means of egress shall not have a rise greater than 20 feet (6096 mm) between floor levels or landings.
3. Spiral stairways used as a means of egress from technical production areas.

5. Delete without substitution as follows:

~~**1015. 6 (IFC [B] 1015.6) Stage means of egress.** Where two means of egress are required, based on the stage size or occupant load, one means of egress shall be provided on each side of the stage.~~

~~**1015. 6.1 (IFC [B] 1015.6.1) Gallery, gridiron and catwalk means of egress.** The means of egress from lighting and access catwalks, galleries and gridirons shall meet the requirements for occupancies in Group F-2.~~

~~**Exceptions:**~~

1. ~~A minimum width of 22 inches (559 mm) is permitted for lighting and access catwalks.~~
2. ~~Spiral stairs are permitted in the means of egress.~~
3. ~~Stairways required by this subsection need not be enclosed.~~
4. ~~Stairways with a minimum width of 22 inches (559 mm), ladders, or spiral stairs are permitted in the means of egress.~~
5. ~~A second means of egress is not required from these areas where a means of escape to a floor or to a roof is provided. Ladders, alternating tread devices or spiral stairs are permitted in the means of escape.~~
6. ~~Ladders are permitted in the means of egress.~~

6. Revise as follows:

1022.1 (IFC [B] 1022.1) Enclosures required. Interior exit stairways and interior exit ramps shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. Exit enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the exit enclosure shall include any basements but not any mezzanines. Exit enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours. Exit enclosures shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An exit enclosure shall not be used for any purpose other than means of egress.

Exceptions:

1. In all occupancies, other than Group Hand I occupancies, a stairway is not required to be enclosed when the stairway serves an occupant load of less than 10 and the stairway complies with either Item 1.1 or 1.2. In all cases, the maximum number of connecting open stories shall not exceed two.
   1.1. The stairway is open to not more than one story above its level of exit discharge; or
   1.2. The stairway is open to not more than one story below its level of exit discharge.
2. Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside need not be enclosed.
3. Stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
4. Stairways in open parking structures that serve only the parking structure are not required to be enclosed.
5. Stairways in Group I-3 occupancies, as provided for in Section 408.3.8, are not required to be enclosed.
6. Means of egress stairways as ~~required by Sections 410.5.3 and 1015.6.1~~ provided for in Sections 410.6.2 are not required to be enclosed.
7. Means of egress stairways from balconies, galleries or press boxes as provided for in Section 1028.5.1 are not required to be enclosed.

Reason: Currently special means of egress provisions for stages are located in two separate sections and chapters, Section 410.5.3 and 1015.6. The separate sections are in conflict with one another and are not consistent in terminology . Section 410.5.3 requires two exit access routes, one from each side of the stage regardless of occupant load or travel distance. Section 1015.6, however, allows a singe exit or exit access route if common path of travel and occupant load limits per table 1015.1 are met. Section 410.5.3 allows a singe exit or exit access from the fly gallery or the gridiron without a travel distance restriction. Section 1015.6.1 requires the means of egress for the gallery and gridiron to meet means of egress provisions for F-2, which can require multiple exits or exit access routes and limits the travel distance per group F-2 requirements. Current section 1015.6.1 also refers to gallery instead of the currently defined term fly gallery that is referenced in Section 410.5.3.

The proposed change removes the dated terms and definitions of fly gallery and gridiron and replaces them with a single modern term "Technical Production Area". Technical production area encompasses all areas, regardless of their traditional name, used to support entertainment technology from above the performance area. Technical production areas may also be used is venues without stages or platforms, such as sports arenas; therefore it was added to the title of Section 410 as a stand-alone area regulated by proposed Section 410.7.

Proposed sections 410.6 through 410.7.4.1 will completely replace the conflicting sections 410.5.3 and 1015.6 providing a single coordinated set of means of egress requirements for stages, platforms and technical production areas. The proposed section 410.6 language " Except as modified or as provided for in this section, the provisions of Chapter 10 shall apply" removes a need for any pointers or exceptions in Chapter 10 and the language was modeled from existing Group I-3 language in Section 408.3 so the language is consistent with language already in Chapter 4 used for the same purposed.

Section 410.6.1 retains the current Section 1015.6 concept of requiring the number of exits based on occupant load and travel distance per Section 1015 and keeps the current concept that if 2 means of egress are required from the stage, per Section 1015, then they must be located on either side of the stage. The reference to the space under the stage was deleted as this provision was also a bit outdated because modern configurations of spaces below stages are extremely variable.

Proposed Section 410.7 and sub sections sets specific performance based requirements for all technical production areas, regardless of their name or label. This proposal clarifies that both the travel distance and the common path of travel limits apply. The 100' common path of travel was chosen since stages are generally in sprinklered buildings. The 300' and 400' travel distances were based on the current group F-2 designation assigned to galleries in current Section 1015.6.1. The second egress means of escape is based on current Section 410.5.3 and 1015.6.1 exception #5. The permitted exit access components allowed for serving the technical production and the 22" width in proposed Section 410.7.1 are based on current Section 1015.6.1. The allowance for the use of a ladder in the means of egress serving a fly gallery was changed to require the ladder be permanently installed so that a movable ladder cannot be used for egress.

In Section 1009.7 exception #3 is proposed to address the special case of spiral stairs serving technical production areas without the need for the landing at 12' intervals.

Section 1015.6 is proposed to be removed entirely. The code change puts the special detailed requirements for stage, platform and technical production area means of egress completely in Chapter 4. The reason that the two sections, one in Chapter 4 and one in Chapter 10, were in conflict is because having the provisions in two separate code text locations set up the scenario where changes were not made to each section to keep them synchronized. Special provisions of Chapter 4 do not need to be repeated in the code.

Exception #6 to 1022.1 is deleted and replaced with a reference to proposed Sections 410.6.2.

Cost Impact: The code change proposal will reduce the cost of construction by allowing for smaller stages to be constructed with one exit or exit access instead of two. Additional cost savings will be provided by the reduced confusion and misapplication of the code provisions for stage means of egress; inconsistent and confusion code provisions cost extra money to the code users.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CLEMENTS-E3-1015.6

G68–09/10
410.2, 410.3.2

Proponent: Bill Conner, representing American Society of Theatre Consultants

1. Delete without substitution:

410.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

~~**PINRAIL.** A rail on or above a stage through which belaying pins are inserted and to which lines are fastened.~~

2. Revise as follows:

410.3.2 Galleries, gridirons~~,~~ <u>and</u> catwalks ~~and pinrails~~. Beams designed only for the attachment of portable or fixed theater equipment, gridirons, galleries and catwalks shall be constructed of approved materials consistent with the requirements for the type of construction of the building; and a fire-resistance rating shall not be required. These areas shall not be considered to be floors, stories, mezzanines or levels in applying this code.

Exception: Floors of fly galleries and catwalks shall be constructed of any approved material.

Reason: First, this is a nearly antiquated term and feature, replaced by modern lock-rails or completely by electric motors. Second, there is a definition in the Code and the use of the term in a heading of a section but no specific requirements or regulation.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CONNER-G4-410.3.2

G69–09/10
410.3.7.1, 410.3.7.2

Proponent: Bill Conner, representing American Society of Theatre Consultants

Revise as follows:

410.3.7.1 Roof vents. Two or more vents constructed to open automatically by approved heat-activated devices and with an aggregate clear opening area of not less than 5 percent of the area of the stage shall be located near the center and above the highest part of the stage area. Supplemental means shall be provided for manual emergency opening ~~operation~~ of the ventilator and for non-emergency manual means to open and close the ventilator. Manual operation shall be possible from the stage floor or other approved location. Curbs shall be provided as required for skylights in Section 2610.2. Vents shall be labeled.

[F] 410.3.7.2 Smoke control. Smoke control in accordance with Section 909 shall be provided to maintain the smoke layer interface not less than 6 feet (1829 mm) above the highest level of the assembly seating or above the top of the proscenium opening where a proscenium wall is provided in compliance with Section 410.3.4. In addition to the manual control provided in accordance with Section 909.16, a manual control for the smoke control system shall be provided from the stage floor or other approved location.

Reason: The requirement to be able for a trained person on stage or the fire service to manual open the vents is fundamental to fire safety. The requirement for manual operation from the stage floor is included in the 1992 BCMC Report on Stages, Platforms, and Sound Stages and in NFPA 101 and 5000.

AThe system shall be activated independently by each of the following; (1) Activation of the sprinkler system in the stage area (2) by manually operated switch at an approved location.@

Fire modeling indicates that the time from a fire starting to detection for automatic operation may exceed 10 minutes. After sprinklers, high extract exhaust over the stage is the most important protection from fire hazards available, and at least anecdotally has been proven to be sufficient protection for very large fires, notably the Empire Palace Theatre in Edinburgh, Scotland, on 9 May 1911, where all 3000 theatre goers escaped without benefit of sprinklers or a fire safety curtain completely closing.

The ability to open and close the vents for testing seems obvious. Without the ability to test manually from the stage floor, and the imposition of having to send someone to the roof to literally push the vent closed, there is little likelihood of periodic testing.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CONNER-G5-410.3.7.1

G70–09/10
[F] 410.6 (IFC 914.6.1)

Proponent: Bill Conner, representing American Society of Theatre Consultants

THIS PROPOSAL IS ON THE AGENDA OF THE IFC CODE DEVELOPMENT COMMITTEE. SEE THE TENATIVE HEARING ORDER FOR THE IFC CODE DEVELOPMENT COMMITTEE.

Revise as follows:

[F] 410.6 (IFC 914.6.1) Automatic sprinkler system. Stages and associated dressing rooms, performer lounges, shops, storerooms and technical production areas located within and adjoining a stage shall be equipped with an automatic ~~fire-extinguishing~~ sprinkler system in accordance with ~~Chapter 9~~ Section 903.3.1.1. ~~Sprinklers shall be installed under the roof and gridiron and under all catwalks and galleries over the stage. Sprinklers shall be installed in dressing rooms, performer lounges, shops and storerooms accessory to such stages.~~

Exceptions:

1. Sprinklers are not required under stage areas less than 4 feet (1219 mm) in clear height that are utilized exclusively for storage of tables and chairs, provided the concealed space is separated from the adjacent spaces by not less than 5/8-inch (15.9 mm) Type X gypsum board.
2. Sprinklers are not required for stages 1,000 square feet (93 m^2) or less in area and 50 feet (15 240 mm) or less in height where curtains, scenery or other combustible hangings are not retractable vertically. Combustible hangings shall be limited to a single main curtain, borders, legs and a single backdrop.
3. Sprinklers are not required within portable orchestra enclosures on stages.

Reason: Update language to be consistent with other parts of the code. This also provides a specific reference to Section 903.3.1.1 which contains the reference to the NFPA 13 requirements. The NFPA standard provides adequate information regarding the placement of sprinklers in the backstage and other technical production areas, and such language is not needed in the code.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: **C**ode change G67-09/10 contains a definition of technical production areas.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CONNER-G1-410.6

G71 –09/10
412.4.6.2 (IFC 914.8.2.2)

Proponent: A. Hal Key, PE, Mesa, AZ Fire Department

THIS PROPOSAL IS ON THE AGENDA OF THE IFC CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IFC CODE DEVELOPMENT COMMITTEE.

Revise as follows:

412.4.6.2 (IFC 914.8.2.2) Separation of maximum single fire areas. Maximum single *fire areas* established in accordance with hangar classification and construction type in Table 412.4.6 shall be separated by 2-hour *fire walls* constructed in accordance with Section 706. <u>In determining the maximum single fire area as set forth in Table 412.4.6, ancillary uses which are separated from aircraft servicing areas by a minimum of a one-hour *fire barrier* shall not be included in the area.</u>

Reason: Many times there are ancillary areas associated with an aircraft hangar such as business offices, maintenance shops and storage areas. The intent of Section 412.4.6.2 is to establish the minimum requirements for fire suppression in an aircraft hangar servicing and storage area. The fire suppression requirements contained within NFPA 409 are primarily for the protection of aircraft within the servicing and storage area. The fire protection requirements in the ancillary areas are not as extensive as those required for the aircraft servicing and storage areas. This proposal is consistent with the requirements of NFPA 409.

Cost Impact: The code change proposal will not increase the cost of construction. This will reduce the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KEY-G2-412.4.6.2

G72–09/10
414.5, 415.3 (New)

Proponent: Robert J Davidson, Code Consultant/Alan Shuman, President, representing the National Association of State Fire Marshals (NASFM)

THIS PROPOSAL IS ON THE AGENDA OF THE IFC CODE DEVELOPMENT CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES

1. Revise as follows:

[F] 414.5 Inside storage, dispensing and use. The inside storage, dispensing and use of hazardous materials ~~in excess of the maximum allowable quantities per control area of Tables 307.1(1) and 307.1(2)~~ shall be in accordance with Sections 414.5.1 through ~~414.5.5~~ <u>414.5.4</u> of this code and the *International Fire Code*.

[F] 414.5.1 Explosion control. Explosion control shall be provided in accordance with the *International Fire Code* as required by Table 414.5.1 where quantities of hazardous materials specified in that table exceed the maximum allowable quantities in Table 307.1(1) or where a structure, room or space is occupied for purposes involving explosion hazards as required by Section 415 or the *International Fire Code*.

[F] TABLE 414.5.1
EXPLOSION CONTROL REQUIREMENTS[a]

(No change to table contents)

[F] 414.5.2 Monitor control equipment. (No change to current text)

~~**[F] 414.5.3 Automatic fire detection systems.** Group H occupancies shall be provided with an automatic fire detection system in accordance with Section 907.2.~~

[F] ~~414.5.4~~ 414.5.3 Standby or emergency power. Where mechanical ventilation, treatment systems, temperature control, alarm, detection or other electrically operated systems are required by the *International Mechanical Code*, the *International Fire Code* or this code, such systems shall be provided with an emergency or standby power system in accordance with this code or the ICC Electrical Code.

Exceptions*: (Exceptions not shown remain unchanged.)*

[F] ~~415.5.5~~ 414.5.4 Spill control, drainage and containment. (No change to current text)

2. Add new text as follows:

[F] 415.3 Automatic fire detection systems. Group H occupancies shall be provided with an automatic fire detection system in accordance with Section 907.2.

(Renumber Section 415.3 and subsequent sections)

Reason: The main purpose of this change is to correct a conflict with the International Fire Code when Table 911.1 from the fire code was brought over and placed in the International Building Code as Table 414.5.1.

Table 911.1 in the fire code is applied where an explosion hazard exist regardless of the quantity of the hazardous material and where the quantity exceeds the maximum allowable quantity.

"911.1 General.
Explosion control shall be provided in the following locations:
1. Where a structure, room or space is occupied for purposes involving explosion hazards as identified in Table 911.1.
2. Where quantities of hazardous materials specified in Table 911.1 exceed the maximum allowable quantities in Table 2703.1.1(1)."

In reviewing Section [F] 414.5.1 Explosion Control the requirements of [F] Table 414.5.1 are intended to be applied:

"*in accordance with the International Fire Code as required by Table 414.5.1 where quantities of hazardous materials specified in that table exceed the maximum allowable quantities in Table 307.1(1), or,"*

" where a structure, room or space is occupied for purposes involving explosion hazards as required by Section 415 or the International Fire Code"

This language matches the intent of the fire code requirements, however, Section [F] 414.5 as currently written limits application of everything following to only those locations that exceed the MAQ. That is where the conflict lies.

This proposal strikes the reference to the maximum allowable quantities found in Section [F] 414.5 to eliminate the conflict and allow Section [F] 414.5.1 and [F] Table 414.5.1 to be applied consistent with the language found in [F] 414.5.1 and the International Fire Code. It also provides consistency with the overall scope of Section 414.0 which is to provide for requirements for all buildings and structures containing hazardous materials:

"[F] 414.1 General.
The provisions of this section shall apply to buildings and structures occupied for the manufacturing, processing, dispensing, use or storage of hazardous materials."

Section [F] 415.0 applies to occupancies exceeding the maximum allowable quantities:

"[F] 415.1 Scope.
The provisions of this section shall apply to the storage and use of hazardous materials in excess of the maximum allowable quantities per control area listed in Section 307.1. Buildings and structures with an occupancy in Group H shall also comply with the applicable provisions of Section 414 and the International Fire Code."

The proposal includes a change to move existing [F] 414.5.3 to [F] 415.4 since that section only applies to H Group occupancies and that is the scope of Section [F] 415.0. And the proposal suggests modifying Section [F] 414.5.4 by inserting the words "by the *International Mechanical Code*, the *International Fire Code* or this code" to ensure where ever any of the codes requires such systems in relation to the presence of hazardous materials the required safety systems are provided with stand-by or emergency power.,

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: DAVIDSON-SHUMAN-G1-414.5.doc

G73–09/10
415.3.1, Table 415.3.1; IFC 3904.1.2

Proponent: Larry Fluer, Fluer, Inc. representing self

THESE PROPOSALS ARE ON THE AGENDA OF THE IFC CODE DEVELOPMENT COMMITTEE AS TWO SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

PART I – IBC GENERAL

1. Revise as follows:

[F] 415.3.1 Group H occupancy minimum fire separation distance. Regardless of any other provisions, buildings containing Group H occupancies shall be set back to the minimum fire separation distance as set forth in Items 1 through 4 below. Distances shall be measured from the walls enclosing the occupancy to lot lines, including those on a public way. Distances to assumed lot lines established for the purpose of determining exterior wall and opening protection are not to be used to establish the minimum fire separation distance for buildings on sites where explosives are manufactured or used when separation is provided in accordance with the quantity distance tables specified for explosive materials in the *International Fire Code*.

1. Group H-1. Not less than 75 feet (22 860 mm) and not less than required by the *International Fire Code*.

   Exception~~s~~:

   ~~1.~~ Fireworks manufacturing buildings separated in accordance with NFPA 1124.
   ~~2. Buildings containing the following materials when separated in accordance with Table 415.3.1:~~
   ~~2.1. Organic peroxides, unclassified detonable.~~
   ~~2.2. Unstable reactive materials, Class 4.~~
   ~~2.3. Unstable reactive materials, Class 3 detonable.~~
   ~~2.4. Detonable pyrophoric materials.~~

2. Group H-2. Not less than 30 feet (9144 mm) where the area of the occupancy exceeds 1,000 square feet (93 m^2) and it is not required to be located in a detached building.
3. Groups H-2 and H-3. Not less than 50 feet (15 240 mm) where a detached building is required (see Table 415.3.2).
4. Groups H-2 and H-3. Occupancies containing materials with explosive characteristics shall be separated as required by the *International Fire Code*. Where separations are not specified, the distances required shall be determined by a technical report issued in accordance with Section 414.1.3. ~~not be less than the distances required by Table 415.3.1.~~

2. Delete Table 415.3.1 without substitution:

~~**[F] TABLE 415.3.1**~~
~~**MINIMUM SEPARATION DISTANCES FOR BUILDINGS CONTAINING EXPLOSIVE MATERIALS**~~

PART II – IFC

Revise text as follows:

3904.1.2 Distance from detached ~~storage~~ buildings to exposures. In addition to the requirements of the *International Building Code*, detached storage buildings for Class I, II, III, IV and V organic peroxides shall be located in accordance with Table 3904.1.2. Detached buildings containing quantities of unclassified detonable organic peroxides in excess of those set forth in Table 2703.8.2 shall be located in accordance with Table 3304.5.2(1).

Reason: Section 415.3.1 was established to give direction to code users to determine location of buildings of Group H character. Users have frequently been confused as to application of Table 415.3.1 which was developed from the American Table of Distances, published by the Institute of Makers of Explosives. As the code evolved siting requirements for explosive materials were resolved with changes made to Chapter 33 of the IFC. Chapter 33 of the IFC contains specific requirements for each category of explosive material under consideration.

Exceptions to item 1 of Section 415.3.1 were intended to provide direction for specific materials as well as for specific occupancies. IBC Table 415.3.1 in application is now in conflict with requirements in the IFC for certain materials. With minor modification to the IFC and the proposed modifications to Section 415.3.1 the inconsistencies can be resolved. Deleting material specific classes of hazardous materials from the IBC results

in occupancy specific guidance in the building code with material specific requirements to be determined by the fire code. Deleting Table 415.3.1 is an essential part of the change that is needed to clarify the approach. This change will result in a consistent application of requirements for building location based on tabular distances or direction determined by the IFC.

The following requirements will apply with this correlating change. By removing Exception items 2.1 through 2.4 from item 1 of Section 415.3.1 the default distances will be found in the IFC as follows:

Hazard Class	Existing Reference	Required distances
Fireworks	Exception 1, item 1	NFPA 1124 (no change)
Organic peroxide, unclassified detonable	Exception 1, item 2.1	IFC Section 3904.1.2 (as proposed for revision)
Unstable reactive materials, Class 4	Exception 1, item 2.2	Indoors IFC 4304.1; Outdoors IFC 4304.2.1
Unstable reactive materials, Class 3 detonable	Exception 1, item 2.3	Indoors IFC 4304.1; Outdoors IFC 4304.2.2
Detonable pyrophoric materials	Exception 1, item 2.4	Indoors, as for H-1 materials. See item 1 (75 feet minimum); Outdoors IFC 4104.2.1

The modification to 415.3.1, item 4 only applies when the materials under consideration are not addressed by the IFC. In these rare circumstances a technical opinion and report is required under the authority granted to the code official by Section 414.1.3.

IFC Section 3904.1.2 has been modified to address the category of unclassified detonable organic peroxides. As the classification system for organic peroxides addresses finished goods e.g., Class I through Class V, the category of unclassified detonable organic peroxides addresses organic peroxides in the manufacturing process. Building siting for such materials is determined by IFC Table 3304.5.2(1). The resultant distances determined using Table 3304.5.2(1) are comparable with those obtained using existing IBC Table 415.3.1 and the approach is consistent with regulation established by NFPA 400 (NFPA's new hazardous materials code) for detonable organic peroxides. It should be noted that the modification to address unclassified detonable material applies to such materials in conditions of storage or use (includes manufacturing).

Cost Impact: The code change proposal will not increase the cost of construction.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IFC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FLUER-G2-415.3.1 (NEW)

G74–09/10

[F] 415.3.2, [F]415.5, 508.1

Proponent: Larry Fluer, Fluer, Inc. and Patrick McLaughlin, McLaughlin & Associates, representing the Compressed Gas Association

THIS PROPOSAL IS ON THE AGENDA FOR THE IFC CODE DEVELOPMENT COMMITTEE. SEE THE TENATIVE HEARING ORDER FOR THE IFC CODE DEVELOPMENT COMMITTEE.

Revise as follows:

[F] 415.3.2 Group H-1 and H-2 or H-3 detached buildings. The storage or use of hazardous materials in excess of those amounts listed in Table 415.3.2 shall be in accordance with the applicable provisions of Sections 415.4 and 415.5.

[F] 415.3.2.1 Wall and opening protection. Where a detached building is required by Table 415.3.2, there are no requirements for wall and opening protection based on fire separation distance.

[F] 415.5 Special provisions for Group H-2 and H-3 occupancies. Group H-2 and H-3 occupancies containing quantities of hazardous materials in excess of those set forth in Table 415.3.2 shall be in detached buildings used for ~~no other purpose~~ manufacturing, processing, dispensing, use or storage of hazardous materials. ~~shall not exceed one story in height and shall be without basements, crawl spaces or other under-floor spaces.~~

Exception: The quantity of materials listed in Section 307.3 shall not exceed the maximum allowable quantity per control area in Table 307.1.(1).

[F] 415.5.1 Detached buildings. Detached buildings shall not exceed one story in height and shall be without basements, crawl spaces or other under-floor spaces.

[F] 415.5.2 Multiple hazards. Group H-2 or H-3 occupancies containing materials which are in themselves both physical and health hazards in quantities exceeding the maximum allowable quantities per control area in Table 307.1(2) shall comply with requirements for Group H-2, H-3 or H-4 occupancies as applicable.

[F] 415.5.3 Separation of incompatible materials. Hazardous materials other than those listed in Table 415.3.2 shall be allowed in manufacturing, processing, dispensing, use or storage areas when separated from incompatible materials in accordance with the provisions of the *International Fire Code.*

[F] 415.5.4 Water Reactives. Group H-2 and H-3 occupancies containing water-reactive materials shall be resistant to water penetration. Piping for conveying liquids shall not be over or through areas containing water reactives, unless isolated by approved liquid-tight construction.

Exception: Fire protection piping shall be permitted over or through areas containing water reactives without isolating it with liquid tight construction.

(Renumber subsequent sections)

508.1 General. Each portion of a building shall be individually classified in accordance with Section 302.1. Where a building contains more than one occupancy group, the building or portion thereof shall comply with the applicable provisions of Section 508.2, 508.3 or 508.4, or a combination of these sections.

Exceptions:

1. Occupancies separated in accordance with Section 509.
2. Where required by Table 415.3.2, areas of Group H-1, H-2 and H-3 occupancies shall be located in a ~~separate and~~ detached building or structure.
3. Uses within live/work units, complying with Section 419, are not considered separate occupancies.

Reason: (**Regarding changes to Sec**. **415.3.2)** The quantity of materials in use are also considered in the application of Table 415.3.2 as it is common to have process operations or manufacturing operations where the quantities of regulated materials exceeds the tabular limits. The revision to create a subsection to set the requirements for wall and opening protection in detached buildings apart from the fundamental requirement to provide detached buildings is editorial. There is no change in technical content.

(Regarding changes to Sec. 415.5) A *Detached Building* is defined by Section 307.2 as follows:

DETACHED BUILDING. A separate single-story building, without a basement or crawl space, used for the storage or use of hazardous materials and located an approved distance from all structures.

Section 414.1 establishes the scope of operations addressed by the IBC to include the manufacturing, processing, dispensing, use or storage of hazardous materials. The requirements for detached buildings are triggered when the detached building threshold limits imposed by Table 415.3 are exceeded. This is done in order to limit the risk to other buildings or structures imposed by large quantities of various materials, and to prohibit the use of mixed occupancy buildings that contain offices, lunchrooms or occupancies other than those in Group H.

It is common to have mixed uses involving H-2, H-3 and H-4 materials which are stored or processed in the same building. In some cases flammable materials may be located in the same area as are toxic or highly toxic materials as well as those that may be oxidizing or otherwise reactive. Process areas typically limit the quantities of reactive and possibly incompatible materials in process operations with storage of these same materials isolated to individual storage rooms. It is not unusual for a process area to be classified as an H-2 Occupancy which may be used to mix, blend or process H-3 or H-4 materials which otherwise may be located in independent storage or manufacturing operations that are classified as either H-3 or H-4 Occupancies.

This concept was accepted by the IFC Code Development Committee with modifications to the requirements for detached buildings as contained in Chapter 27 of the IFC under code change Item F134-00. In addition revisions to the table title and the first row of Table 2703.8.2 and Table 415.3.2 (when coordinated) were accepted as changes by the IFC Code Development Committee under F134-00. Although the 2003 through 2009 Editions of the IFC and IBC don't reflect the change, the changes to the table titles have been included by erratum. The reason statement published by the Code Development Committee regarding the use of detached buildings is as follows:

> The manufacture and storage of hazardous materials are frequently integrated into a single building where storage is contained in the same building in which the material is manufactured. Additionally, it is not unusual for certain manufacturing buildings to contain multiple Group H uses where the threshold quantities are exceeded. The existing provisions imply that the only function that can occur within a detached building is storage to the exclusion of manufacturing, although in many cases the quantities used in manufacturing may also exceed the threshold levels where detached buildings would otherwise be required. Limiting the uses of identified hazardous materials to separate buildings containing only Group H uses maintains the intent of the code which is to isolate large quantities of certain physical hazard materials from uses other than those in Group H. The changes offered clarify rather than change the intent of the code.

Section 415.5 has been revised and reorganized to clarify the requirements and to create subsections that focus on the controls that may be applied while maintaining the concept addressed by the IFC Code Development Committee on code changes that were adopted into the IFC. The reasons for each of the subsections follow:

415.5 Exception (New). Materials listed in Section 307.3 are required to be in a Group H-1 occupancy when the MAQ is exceeded. These same materials are allowed in buildings of H-2 or H-3 character when contained in quantities not exceeding the MAQ.

415.5.1 Relocated text from existing 415.5 that separates limits on height, basements and under-floor spaces from the fundamental requirement addressing the activities that can be conducted in detached buildings.

415.5.2 (New). Requires that materials with both a physical and a health hazard comply with the requirements of either the Group H-2 or H-3 occupancy as well as the requirements that recognize the health hazard nature of a material. Similar language is found in paragraph two of Section 415.4. For example one could have nondetonable Class 3 Unstable Reactive materials that are also highly toxic. The area should be required to meet the requirements of a Group H-2 occupancy based on the physical hazards of these materials as well as the requirements of a Group H-4 occupancy to address the health hazards of these same materials. From a construction standpoint, the more restrictive provisions of the H-2 Occupancy will govern. In addition, the requirements for elements such as emergency power, ventilation and/or secondary containment imposed by the H-4 Occupancy will be imposed.

415.5.3 (New). Chemical process areas may contain a wide variety of hazardous materials including those that appear in Table 415.3.2. For example, it is not uncommon to mix toxic gases with pyrophoric gases, or to process or store flammable gases in areas where acetylene (Unstable Reactive Class 2) is present. Similar activities are conducted with various materials used throughout the chemical industry.

Accepting this code change will clarify the intent of the use of detached buildings that are used for manufacturing, processing, dispensing, using or storing hazardous materials which may be stored in various portions of the building which may have hazardous materials of different character. By limiting the building "solely" to hazardous materials operations it is intended that other uses be excluded. The revisions to Section 415.5 do not affect buildings of Group H-1 Occupancy as addressed by Section 415.4.

(Regarding changes to Sec. 508.1) The revision to delete the term "and separate" from Exception 2 to Section 508.1 is to clarify that a "detached building" be used when the detached threshold quantity limits of Table 415.3.2 have been exceeded. The requirements for detached H-1, H-2 or H-3 buildings are found in Sections 414.4 and 414.5 respectively. Revisions made to Section 415.5 recognize that a detached H-2 building can contain materials that would trigger the use of an H-3 occupancy when the maximum allowable quantity (MAQ) imposed by Table 307.1.(1) are exceeded. Literally interpreted an H-2 type of material that is comprised of H-2 and H-3 materials could not be manufactured in the same building. Changes to the IFC made under F134-00 recognize the unique character of detached buildings. Companion changes have been submitted to modify Section 414.5 for clarity.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: Fluer-Mclaughlin-G1-415.3.doc

G75–09/10
[F] 415.8.5.2.2

Proponent: Joe Holland and Dave Bueche, Hoover Treated Wood Products

Revise as follows:

[F] 415.8.5.2.2 Liquid storage rooms. Liquid storage rooms shall be constructed in accordance with the following requirements:

1. Rooms in excess of 500 square feet (46.5 m^2) shall have at least one exterior door *approved* for the department access.
2. Rooms shall be separated from other areas by *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 712, or both. The *fire-resistance rating* shall be not less than 1 hour for rooms up to 150 square feet (13.9 m^2) in area and not less than 2 hours where the room is more than 150 square feet (13.9 m^2) in area.
3. Shelving, racks, and wainscoting in such areas shall be of noncombustible construction of wood of not less than 1 inch (25 mm) nominal thickness of fire-retardant-treated wood complying with Section 2303.2.
4. Rooms used for the storage of Class I flammable liquids shall not be located in a basement.

Reason: The purpose of using FRTW in this application is to recognize it ability to prevent the spread of fire. This ability is not dependent on a specific thickness. The span and the load placed on the shelf will dictate the thickness.

FRTW responds to a fire differently than untreated wood. It has a flame spread index significantly lower than untreated wood.

Depending on the species, untreated wood has an index of more than 70 to over 190. FRTW is required to have a flame spread index of 25 or less. The products in the market place have indexes of 15 or less. FRTW will produce significantly less smoke than untreated wood. It won't spread the fire and because of the treatment it will char and produce less heat than untreated wood.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOLLAND-BUECHE-G1-415.8.5.2.2.doc

G76–09/10
419.1, 419.1.1

Proponent: Curt Wiehle, Minnesota Construction Codes and Licensing Division

Revise as follows:

419.1 General. A live/work unit is a dwelling unit or sleeping unit ~~in~~ which ~~a significant portion of the space~~ includes a nonresidential use that is operated by the tenant. Live/work units ~~and~~ shall comply with Sections 419.1 through 419.8.

> ~~**Exception:** Dwelling or sleeping units that include an office that is less than 10 percent of the area of the dwelling unit shall not be classified as a live/work unit.~~

419.1.1 Nonresidental use limitations. ~~The following shall apply to all live/work areas~~ The nonresidential use portion of a live/work unit shall comply with all of the following:

1. ~~The live/work unit is permitted to be a maximum of 3,000 square feet (279 m2)~~ The nonresidential area shall be not less than 10 percent of the total area of the live/work unit;
2. The nonresidential area ~~is permitted to be a maximum 50 percent of the area of each live/work~~ shall not exceed 1,500 square feet (140 m^2) or shall not be more than 50 percent of the total area of the live/work unit, whichever is less;
3. The nonresidential area ~~function~~ shall be ~~limited to the first or main floor only of the live/work unit~~ located on an accessible route; and
4. A maximum of five nonresidential workers or employees ~~are~~ shall be allowed to occupy the nonresidential area at any one time.

Reason: The modifications to Sections 419.1 and 419.1.1 are related to establishing the size of the nonresidential area of the unit. The modification to Item 1 essentially relocates the deleted exception and establishes the minimum size of the nonresidential area required in order to be considered a live/work unit. Item 2 establishes a maximum size of the nonresidential area without regard to the residential portion of the unit. The modification to Item 2 is reasonable as it maintains the existing maximum size of the business use but does not limit the size of the residential portion of the unit as the residential portion of the unit is irrelevant to the intent of the section.

The modification to Item 3 allows the nonresidential use to be located on floors other than the main floor. While providing an accessible route via elevator or lift is costly, as is accessible means of egress per Section 419.3, the option should be available to the tenant.

The modification to Item 4 is editorial to provide consistent language throughout the section.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: WIEHLE-G1-419.1

G77–09/10
419.1.1

Proponent: John England, MCO, England Enterprises Inc., representing the Cities of Beaufort, Hardeeville

Revise as follows:

419.1.1 Limitations. The following shall apply to all live/work areas:

1. The live/work unit is permitted to be a maximum of 3,000 square feet (279 m^2);
2. The nonresidential area is permitted to be a maximum 50 percent of the area of each live/work unit;
3. The nonresidential area function shall be limited to the first or main floor only of the live/work unit; and
4. A maximum of five nonresidential workers or employees are allowed to occupy the nonresidential area at any one time.
5. The work unit is limited to B or M occupancy.

Reason: Any other occupancy may increase the hazardous conditions to the sleeping occupants. If the limit this to Group B and M ,and storage incidental to the Groups B and M; there is still provisions to have a small restaurant (under 50) on the premises

If there is no limits then the provisions are endless --

> Hazardous chemicals next to a dwelling unit.

> Commercial Garages would not have to be separated from dwelling units
> Warehouse with who know what next to a dwelling unit.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ENGLAND-G3-419.1.1.doc

G78–09/10
419.1.1

Proponent: Tom Rubottom, City of Westminster, representing the Colorado Chapter of ICC

Revise text as follows:

419.1.1 Limitations. The following shall apply to all live/work areas:

1. The live/work unit is permitted to be a maximum of 3,000 square feet (279 m^2);
2. The nonresidential area is permitted to be a maximum 50 percent of the area of each live/work unit;
3. The nonresidential area function shall be limited to the first or main floor only of the live/work unit; and
4. A maximum of five nonresidential workers or employees are allowed to occupy the non-residential area at any one time.
5. The nonresidential area is limited to a maximum occupant load of 49 as determined by Section 1004.

Reason: Section 419 does not include the provisions for the higher occupant loads such as door swing, number of exits, exit signs, emergency egress illumination and panic hardware.

Cost Impact: This code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RUBOTTOM-G1-419.1.1

G79–09/10
419.3, 419.7

Proponent: Gregory Mahoney, City of Davis Community Development Department, representing Sacramento Valley Association of Building Officials

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

419.3 Means of egress. Except as modified by this section, ~~the provisions for R-2 occupancies in Chapter 10 shall apply to the entire live/work unit~~ the means of egress components for a live/work unit shall be designed in accordance with Chapter 10 for the function served.

419.3.1 Egress capacity. The egress capacity for each element of the live/work unit shall be based on the occupant load for the function served in accordance with Table 1004.1.1.

~~**419.3.2 Sliding doors.** Where doors in a means of egress are of the horizontal - sliding type, the force to slide the door to its fully open position shall not exceed 50 pounds (220 N) with a perpendicular force against the door of 50 pounds (220 N).~~

~~**419.3.3**~~ **419.3.2 Spiral stairways.** Spiral stairways that conform to the requirements of Section 1009.9 shall be permitted.

~~**419.3.4 Locks.** Egress doors shall be permitted to be locked in accordance with Exception 4 of Section 1008.1.9.3.~~

419.7 Accessibility. Accessibility shall be designed in accordance with Chapter 11 for the function served.

Reason: There were a number of issues that were brought up in Palm Springs regarding the code change which introduced live/work units into the IBC. The concern was that Section 419 as written had major flaws and creates more problems than it solves for the following reasons.

Example: A 3,000 square foot live/work unit could contain a 1,500 square foot restaurant containing a 500 square foot kitchen and a 1,000 square foot dining area. Restaurants of this size would probably not require more than 5 employees.

The occupant load of the space would be Kitchen 500/200 = 3; Dining 1,000/15 = 67.

Section 419.2 would classify this area as Group R-2, rather than Group A-2.

Section 419.3 would require the means of egress to comply as a Group R-2 except for specific modifications made by Section 419.

Section 419 would not require panic hardware, egress illumination provided with emergency power, posting of occupant load, exits signs and enclosed stairways.

This same restaurant across the street or next door that did not have a dwelling unit connected would be required to comply.

This proposed change is relatively minor and would address these issues by requiring that the building comply with the means of egress and accessibility requirements for the function served, with some minor exceptions.

The sections allowing sliding doors and locks per exception #4 of 1008.1.9.3 were removed because they would not be consistent with the requirement to comply with means of egress for the function served.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MAHONEY-G1-419.3

G80–09/10
419.9 (New)

Proponent: Tom Rubottom City of Westminster, Colorado representing the Colorado Chapter of ICC

Add new text as follows:

419.9 Plumbing facilities. The nonresidential area of the live/work unit shall be provided with minimum plumbing facilities as specified by Chapter 29, based on the function of the nonresidential area.

Reason: The current code requirements do not require toilet facilities for the work area of a live/work unit. Live/work units are classified as Group R-2 occupancies. The only toilet facilities now required are those for the dwelling unit which could be located on the upper floors and therefore there would be no requirements for any plumbing fixtures on the main level work area. The toilet room in the dwelling unit will not be accessible to the same standards as required for an accessible public toilet room in business and commercial occupancies. This code change would add language to make sure the work area would have the same minimum plumbing facilities (both for number of fixtures and for meeting accessibility requirements) as a typical commercial project.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RUBOTTOM-G2-419.1

G81–09/10
420.2, Table 503, Table 508.4, 509.5, 509.6, 705.11, 707.3.10 (New), 709.3, 709.4, 717.3.2, 717.4.2

Proponent: Jason Thompson, National Concrete Masonry Association, representing the Masonry Alliance for Codes and Standards

1. Revise as follows:

420.2 Separation walls. Walls separating dwelling units in the same building, walls separating sleeping units in the same building, and walls separating dwelling units or sleeping units in the same building shall be constructed as fire ~~partitions~~ barriers in accordance with Section ~~709~~ 707.

> **Exception:** In Group R-3 occupancies, walls separating dwelling units in the same building, walls separating sleeping units in the same building, and walls separating dwelling units or sleeping units in the same building shall be constructed as fire partitions in accordance with Section 709.

TABLE 503
ALLOWABLE BUILDING HEIGHT AREAS[a]

Building height limitations shown in feet above grade plane. Story limitations shown as stories above grade plane
Building area limitations shown in square feet as determined by the definition of "Area, building", per floor.

		TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
	Hgt (ft)	UL	160	65	55	65	55	65	50	40
Group		STORIES (S) AREA (A)								
I-1	S	UL	9	4	3	~~4~~ NP	~~3~~ NP	~~4~~ NP	~~3~~ NP	~~2~~ NP
	A	UL	55,000	19,000	10,000	~~16,500~~ NP	~~10,000~~ NP	~~18,000~~ NP	~~10,500~~ NP	~~4,500~~ NP
R-1	S	UL	11	4	4	~~4~~ NP	~~4~~ NP	~~4~~ NP	~~3~~ NP	~~2~~ NP
	A	UL	UL	24,000	16,000	~~24,000~~ NP	~~16,000~~ NP	~~20,500~~ NP	~~12,000~~ NP	~~7,000~~ NP
R-2	S	UL	11	4	4	~~4~~ NP	~~4~~ NP	~~4~~ NP	~~3~~ NP	~~2~~ NP
	A	UL	UL	24,000	16,000	~~24,000~~ NP	~~16,000~~ NP	~~20,500~~ NP	~~12,000~~ NP	~~7,000~~ NP

(Portions of table not shown remain unchanged)

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

	A[d], E		I-1, R-1, R-2		~~I-1~~, I-3, I-4		I-2		R-3, R-4		F-2, S-2[b], U		B, F-1, M,S-1		H-1		H-2		H-3, H-4, H-5	
OCCUPANCY	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS
A[d], E	N	N	2	NP	1	2	2	NP	1	~~2~~ NP	N	1	1	2	NP	NP	3	4	2	3[a]
I-1, R-1, R-2			2	NP	2	2	2	NP	1	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
~~I-1~~, I-3, I-4					N	N	2	NP	1	NP	1	~~2~~ NP	1	~~2~~ NP	NP	NP	3	NP	2	NP
I-2							N	N	2	NP	2[e]	NP	2	NP	NP	NP	3	NP	2	NP
R-3, R-4									N	N	1[c]	~~2~~[e] NP	1	~~2~~ NP	NP	NP	3	NP	2	NP
F-2, S-2[b], U											N	N	1	2	NP	NP	3	4	2	3[a]
B, F-1, M, S-1													N	N	NP	NP	2	3	1	2[a]
H-1															N	NP	NP	NP	NP	NP
H-2																	N	NP	1	NP
H-3, H-4, H-5																			1[ef]	NP

(Footnotes not shown are unchanged.)

2. Delete without substitution as follows:

~~**509.5 Groups R-1 and R-2 buildings of Type IIIA construction.** The height limitation for buildings of Type IIIA construction in Groups R-1 and R-2 shall be increased to six stories and 75 feet (22 860 mm) where the first floor assembly above the basement has a fire-resistance rating of not less than 3 hours and the floor area is subdivided by 2-hour fire-resistance-rated fire walls into areas of not more than 3,000 square feet (279 m^2).~~

~~**509.6 Groups R-1 and R-2 buildings of Type IIA construction.** The height limitation for buildings of Type IIA construction in Groups R-1 and R-2 shall be increased to nine stories and 100 feet (30 480 mm) where the building is separated by not less than 50 feet (15 240 mm) from any other building on the lot and from lot lines, the exits are segregated in an area enclosed by a 2-hour fire-resistance-rated fire wall and the first floor assembly has a fire-resistance rating of not less than 1 1/2 hours.~~

3. Revise as follows:

705.11 Parapets. Parapets shall be provided on *exterior walls* of buildings.

Exceptions:

1. through 4. (No change to current text)

5. In Group~~s R-2 and~~ R-3 where the entire building is provided with a Class C roof covering, the exterior wall shall be permitted to terminate at the underside of the roof sheathing or deck in Type III, IV and V construction, provided:
   5.1. The roof sheathing or deck is constructed of *approved* noncombustible materials or of *fire-retardant-treated wood* for a distance of 4 feet (1220 mm); or
   5.2. The roof is protected with 0.625-inch (16 mm) Type X gypsum board directly beneath the underside of the roof sheathing or deck, supported by a minimum of nominal 2-inch (51 mm) ledgers attached to the sides of the roof framing members for a minimum distance of 4 feet (1220 mm).
6. (No change to current text)

3. Add new text as follows:

707.3.10 Separation of dwelling units and sleeping units. The fire-resistance rating of the separation between individual dwelling units and sleeping units, and between dwelling units and sleeping units and other spaces in the building shall comply with Table 707.3.9.

Exception: In Group R-3 occupancies, walls separating dwelling units in the same building, walls separating sleeping units in the same building, and walls separating dwelling units or sleeping units in the same building shall be a fire-resistance-rating in accordance with Section 709.3.

4. Revise as follows:

709.3 Fire-resistance rating. Fire partitions shall have a fire-resistance rating of not less than 1 hour.

Exception~~s~~:

~~1.~~ Corridor walls permitted to have a $^1/_2$ hour fire-resistance rating by Table 1018.1.
~~2. Dwelling unit and sleeping unit separations in buildings of Type IIB, IIIB and VB construction shall have fire-resistance ratings of not less than $^1/_2$ hour in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.~~

709.4 Continuity. Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistance-rated floor/ceiling or roof/ceiling assembly above, and shall be securely attached thereto. If the partitions are not continuous to the sheathing, deck or slab, and where constructed of combustible construction, the space between the ceiling and the sheathing, deck or slab above shall be fireblocked or draftstopped in accordance with Sections 717.2 and 717.3 at the partition line. The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for walls separating tenant spaces in covered mall buildings, ~~walls separating dwelling units, walls separating sleeping units~~ and corridor walls in buildings of Type IIB, IIIB and VB construction.

Exceptions:

1. through 4. (No change to current text)
~~5. Fireblocking or draftstopping is not required at the partition line in Group R-2 buildings that do not exceed four stories above grade plane, provided the attic space is subdivided by draftstopping into areas not exceeding 3,000 square feet (279 m^2) or above every two dwelling units, whichever is smaller.~~
5. ~~6.~~ (No change to current text)

717.3.2 Groups ~~R-1, R-2~~, R-3 and R-4. Draftstopping shall be provided in floor/ceiling spaces ~~in Group R-1 buildings, in Group R-2 buildings with three or more dwelling units,~~ in Group R-3 buildings with two dwelling units and in Group R-4 buildings. Draftstopping shall be located above and in line with the dwelling unit and sleeping unit separations.

Exceptions:

1. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2, provided that automatic sprinklers are also installed in the combustible concealed spaces.

5. Delete without substitution:

~~**717.4.2 Groups R-1 and R-2.** Draftstopping shall be provided in *attics*, mansards, overhangs or other concealed roof spaces of Group R-2 buildings with three or more *dwelling units* and in all Group R-1 buildings. Draftstopping shall be installed above, and in line with, *sleeping unit* and *dwelling unit* separation walls that do not extend to the underside of the roof sheathing above.~~

~~**Exceptions:**~~

1. ~~Where *corridor* walls provide a *sleeping unit* or *dwelling unit* separation, draftstopping shall only be required above one of the *corridor* walls.~~
2. ~~Draftstopping is not required in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.~~
3. ~~In occupancies in Group R-2 that do not exceed four *stories above grade plane*, the *attic* space shall be subdivided by draftstops into areas not exceeding 3,000 square feet (279 m^2) or above every two *dwelling units*, whichever is smaller.~~
4. ~~Draftstopping is not required in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.2, provided that automatic sprinklers are also installed in the combustible concealed spaces.~~

Reason: Though the loss of life from fires affecting Group I-1, R-1 and R-2 occupancies is not high the amount of property damage continues to remain high. To reduce this loss this proposal modifies the requirements for Group I-1, R-1and R-2 occupancies to require that all buildings constructed for these occupancies shall be constructed of non-combustible construction and the fire rated separations between sleeping and dwelling units shall be a minimum of 2-hour fire resistance rating. The removal of combustible materials from the building construction and the increase in the fire resistance provides a much higher degree of protection to property in the event of a fire. In addition, when occupants in these types of buildings are sleeping they are less likely to be aware of conditions around them. Fires occurring during these times pose a high risk to the occupants. This increase in the fire resistance provides a higher degree of protection to sleeping occupants in reducing the spread of fire.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: Thompson-G4-419

G82–09/10
424 (New)

Proponent: Mike Ashley CBO, representing: The Alliance for Fire & Smoke Containment & Control, Inc. (AFSCC)

1. Add new section as follows:

SECTION 424
TENANT SEPARATIONS

424.1 General. Buildings containing multiple tenants shall comply with the provisions of Sections 424.1 through 424.3 and other applicable provisions of this code.

Exception. Tenant spaces located in covered mall or open mall buildings shall comply with Section 402.7.2

424.2 Tenant separation walls. Walls separating tenant spaces required to have two or more exits or exit access doorways by Section 1015.1 shall be constructed as fire partitions in accordance with Section 709.

424.3 Automatic sprinkler system modifications. In buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the walls required by Section 424.2 shall be permitted to be constructed as smoke partitions in accordance with Section 711.

424.3.1 Doors. Doors protecting openings in the smoke partitions shall comply with Sections 711.5.2, 711.5.3, and 715.4.8.1

424.3.2 Air transfer openings. Air transfer openings in the smoke partitions shall not be required to be protected with a smoke damper where a fire damper is provided in accordance with Section 716.5.4.

2. Revise text as follows:

709.1 General. The following wall assemblies shall comply with this section.

1. Walls separating dwelling units in the same building as required by Section 420.2.
2. Walls separating sleeping units in the same building as required by Section 420.2.
3. Walls separating tenant spaces in covered mall buildings as required by Section 402.7.2.
4. Corridor walls as required by Section 1018.1.
5. Elevator lobby separation as required by Section 708.14.1.
6. Walls separating tenant spaces as required by Section 424.2.

709.4 Continuity. Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistance-rated floor/ceiling or roof/ceiling assembly above, and shall be securely attached thereto. If the partitions are not continuous to the sheathing, deck or slab, and where constructed of combustible construction, the space between the ceiling and the sheathing, deck or slab above shall be fireblocked or draftstopped in accordance with Sections 717.2 and 717.3 at the partition line. The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for walls separating tenant spaces, ~~in covered mall buildings, walls separating~~ dwelling units, ~~walls separating~~ sleeping units and corridors ~~walls~~ in buildings of Type IIB, IIIB, and VB construction.

Exceptions:

1. The wall need not be extended into the crawl space below where the floor above the crawl space has a minimum 1-hour fire-resistance rating.
2. Where the room-side fire-resistance-rated membrane of the corridor wall is carried through to the underside of the floor or roof sheathing, deck or slab of a fire-resistance-rated floor or roof above, the ceiling of the corridor shall be permitted to be protected by the use of ceiling materials as required for a 1-hour fire-resistance-rated floor or roof system.
3. Where the corridor ceiling is constructed as required for the corridor walls, the walls shall be permitted to terminate at the upper membrane of such ceiling assembly.
4. The fire partitions separating tenant spaces in a covered mall building~~,~~ complying with Section 402.7.2~~,~~ are not required to extend beyond the underside of a ceiling that is not part of a fire-resistance-rated assembly. A wall is not required in attic or ceiling spaces above tenant separation walls in covered mall buildings.
5. Fireblocking or draftstopping is not required at the partition line in Group R-2 buildings that do not exceed four stories above grade plane, provided the attic space is subdivided by draftstopping into areas not exceeding 3,000 square feet (279 m^2) or above every two dwelling units, whichever is smaller.
6. Fireblocking or draftstopping is not required at the partition line in buildings equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1 or 903.3.1.2, provided that automatic sprinklers are installed in combustible floor/ceiling and roof/ceiling spaces.

Reason: This proposed code change is a follow up to Code Change FS71-07/08 which was submitted by the Alliance for Fire and Smoke Containment and Control (AFSCC). A Public Comment was also submitted by the AFSCC for approval as submitted but it did not achieve the necessary two-thirds affirmative vote of the Class A voting members at the Final Action Hearings in Minneapolis. So it was disapproved.

This version takes a slightly different approach to the 1-hour tenant separation requirement by allowing for a reduction in the tenant separation construction from a 1-hour fire partition to a non-rated smoke partition in accordance with Section 711 when the building is protected throughout with an NFPA 13 sprinkler system. However, it does require the doors in the smoke partition to be smoke- and draft-control type doors with self-closing or automatic-closing devices and latches. These need to be specified for smoke partitions where they are desired since Section 711 does not contain these specific requirements. That's because Section 711 defers to other sections of the code to specify them. Also, a fire damper is allowed to be substituted for the more expensive smoke damper required for air transfer openings in these smoke partitions as a part of the sprinkler modifications. It should also be noted that fire and/or smoke dampers are not specifically required by Section 711 for duct penetrations of smoke partition walls. Since individual tenants are generally served by "express" ducts which serve that tenant only and have no openings into adjacent tenant spaces, in a sprinklered building it would not be necessary to provide a smoke damper or fire damper in a duct penetration of a tenant separation wall.

Section 709.4 Continuity has also been revised to allow for the supporting construction for these 1-hour tenant separation walls to not be fire-resistance-rated when the building is constructed of Types IIB, IIIB, or VB construction. This is consistent with the requirements for walls separating tenant spaces in covered mall buildings, dwelling and sleeping unit separation walls in Group I-1 and R occupancies, and 1-hour corridor walls.

Basically, the intent of the 1-hour tenant separation wall is to provide some minimal built-in fire-resistive protection between tenants in the early stages of fire development to protect the tenants until the fire department can arrive and suppress the fire. This provides additional life safety to the occupants of the tenant spaces adjacent to the tenant space on fire by giving them more time to react and evacuate. It also provides for property protection of the adjacent tenants so that a fire in a neighboring tenant will not necessarily put the adjacent tenants out of business.

One-hour tenant separation walls will also assist the responding fire department in fighting fires in multi-tenant buildings. Fire fighters can focus on containing a fire within the individual tenant space utilizing the 1-hour tenant separation walls to assist them in their fire fighting activities. This can also help them with their rescue and evacuation efforts as well, by providing additional time for the fire fighters to do their search and rescue operations while the fire is contained within the individual tenant space. And the 1-hour tenant separations can also provide for a temporary area of refuge for fire fighters. Should a fire get out of control, they can retreat into an adjacent tenant space if they cannot get direct access to the exterior.

Then they can set up a defensive position in an effort to prevent the fire from spreading to other tenants by relying on the 1-hour tenant separation to help contain the fire or at least slow down its rate of spread throughout the floor.

This code change triggers the requirement for the 1-hour tenant separation based on a tenant space requiring at least two means of egress or exits. For example, in Group B office buildings this would be triggered when a tenant space is greater than 5,000 sq ft in area. For a Group M Mercantile occupancy on the first floor or basement levels, the 1-hour tenant separation would be triggered once the space was greater than 1,500 sq ft. For all other levels in a Group M building, the tenant separation requirement would be triggered at 3,000 sq ft.

This tenant separation approach is consistent with the tenant separation requirements for covered mall buildings, as well as for the dwelling and sleeping unit separations in Group I-1, R-1, R-2, and R-3 occupancies. It is also consistent with the 1-hour corridor wall requirements in Section 1018. It makes sense that if 1-hour corridors are required to serve occupant loads greater than 30 for most occupancies in nonsprinklered buildings, then the tenant separations between adjacent enclosed tenant spaces requiring two exits or means of egress doorways out of the tenant spaces should also be provided with 1-hour fire-resistance ratings for those tenant separations. Obviously, the corridor also provides a tenant separation for the tenants on opposite sides of the corridor.

This code change also clarifies that it only applies to enclosed tenant spaces so it does not impact conditions where there is a large open space with multiple tenants utilizing that space, such as in the front of a Costco or in a food court in a covered mall.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: If approved, this section would be located following Section 420 which provides requirements for dwelling and sleeping unit separations.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ASHLEY-G1-424

G83–09/10
424 (New), Chapter 35

Proponent: Edward L. Repic, Architectural Refuse Solutions, LLC, representing self

Add new text as follows:

SECTION 424
RUBBISH CHUTES, RUBBISH COMPACTORS & LAUNDRY CHUTES

424.1 General. Rubbish and laundry chutes and rubbish compactors shall comply with the provisions of Section 424.1 through 424.7 and other applicable provisions of this code. Rubbish and laundry chutes shall comply with Sections 5.1 and 5.2 of NFPA-82, Rubbish compactors shall comply with Chapter 7 of NFPA-82.

424.2 Chute diameter. Chutes shall have a diameter of not less than 24 inches (610 mm). The diameter of the chute shall be maintained for the entire length of the chute,

424.3 Chute materials. The chute shall be constructed of aluminized steel, stainless steel, or galvanized steel of not less than 16 gage, (0.060 inches). The use of thinner materials shall be prohibited.

424.4 Vent. Chutes shall be provided with a vent of the same diameter of the chute. The vent shall extend through the roof. Reduced diameter vents shall be prohibited.

> **Exception.** Subject to the approval of the building official, where the building configuration constrains the continuation of a round vent, a round-to-rectangular transition shall be used above the highest intake allowing the use of a rectangular vent of equivalent, clear cross-sectional area of the round chute being vented. The rectangular vent may either extend to the top of the vent, or where allowed by the building configuration, the vent shall transition from rectangular-to-round before penetrating the roof to create the vent.

424.5 Shaft enclosure at rubbish and laundry chutes. The shaft enclosure containing a rubbish or laundry chute shall comply with Sections 424.5.1 through 424.5.3.

424.5.1 Single sided construction. The chute shaft enclosure shall be of a listed construction that can be fully assembled in accordance with its approved design, including all required drywall taping when required by the design, from one side after the chute has been installed, regardless of the presence of bearing walls supporting floor framing.

424.5.2 Identical floor and wall ratings. A chute shaft enclosure shall provide the required fire protection rating over its entire length. Fire ratings shall not be lower at floor, ceiling or roof framing intersections.

424.5.3 Extend shaft enclosure to roof. The shaft enclosure shall extend to the underside of the roof. Structural framing members supporting the roof shall be outside of the chute shaft enclosure and shall not be permitted inside the shaft enclosure.

424.6 Electric interlocks. Where used, electric interlocks shall be normally engaged. They shall disengage at the door which is signaled to be open. In the event of loss of power, all interlocks shall be in the engaged position.

424.6.1 Safety switch. Electric interlock safety switch shall be provided in the discharge room to permit maintenance of the chute or chute accessories.

424.6.2 Interconnection. Electric interlocks where used with a rubbish compactor shall be interconnected to the power pack of the rubbish compactor to go off line in the event of an alarm notification from the compactor. Such required notifications shall include: container away, emergency shutoff engaged, pressure overload, motor overheating

424.7. Rubbish compactors. Rubbish compactor provisions included in Section 424.6.2 shall apply to all apartment style compactors.

424.6.1 Power pack. Power packs for apartment-style rubbish compactors shall be UL approved.

2. Add new standard to Chapter 35 as follows:

NFPA
82-2004 Gravity Waste or Linen Chutes

Reason: This submittal is part of four such proposals submitted as independent documents with the intent of adequately addressing Trash Chutes (which can include "recycling" chutes that simply redirect parts of the trash waste stream to locations other than a landfill) and Linen (or Laundry) Chutes. These proposals individually address Life Safety, Sprinkler Placement, Accessibility in new and existing facilities, and actual Chute Construction and a related component to Rubbish Chutes: Compactors . Codes generally address the shaft enclosure but ignore the actual chute being enclosed or the compactor it is feeding.

To quote from an authoritative source:

> *"Internationally, code officials recognize the need for a modern, up-to-date building code addressing the design and installation of building systems through requirements emphasizing performance. The International Building Code®, in this 2009 edition, is designed to meet these needs through model code regulations that safeguard the public health and safety in all communities, large and small. This comprehensive building code establishes minimum regulations for building systems using prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new building designs."*

The following information seeks to address the design and installation of a two specific building systems, Rubbish & Laundry Chutes and Rubbish Compactors, to enhance the comprehensive aspects of this code in the full spirit of this quoted material from the Preface of your document. As manufacturers of Chutes and Compactors, with distributors throughout the United States, we see the problems a lack of minimum regulation creates on a daily basis for design professionals. Without regulation design professionals resort to the talent they know best: Design. The problem lies in the fact that they undertake that design function without the benefit of knowing what the industry has learned over the last 90 or so years.

This is not to say that guidelines do not exist. In fact, they do. However, the NFPA-82 document is not a referenced standard to this Code. We are not qualified to recommend the adoption of that entire document as the document addresses items other than chutes and compactors (incinerators, for instance) that are beyond our areas of expertise. We can, however, comment upon and even improve upon the basics included in NFPA-82.

We recommend the addition of certain portions of NFPA-82, namely:
Sections: 5.1 General.
5.2 Gravity Waste or Linen Chutes
Chapter 7 Waste Compactors
(Please note that the words "waste" and "linen" in NFPA-82 correspond to the words "rubbish" and "laundry" in the IBC)
These sections cover several chute-related topics: Design, materials, intakes, discharges, offsets, and vents

Per the "Editor's Note" in section 424.1 These sections should be augmented in two ways:
First, we recommend the addition of certain provisions to NFPA-82 already presented/reasoned under separate proposals and obliquely referenced in Section 424.1, namely:

The Accessibility features outlined in our proposal for
1103.1, 1103.1.1 (new), 1103.1.2 (new);
The Latching and Closing features outlined in our proposal for
708.3.1 (new), 708.3.1.1 (new), 708.3.1.2 (new), 708.3.1.3 (new), 708.13.1, 708.13.3, 715.4.1 Exception (new), 715.4.2, 715.4.8, 715.4.8.1, and 715.4.8.3

Secondly, we recommend other modifications outlined in provisions 424.2 through 424.7. Our reasons for these are as follows:

424.2: Diameter lays the foundation for a common problem in chute design: vent diameter which becomes the subject of the paragraph that follows: 424.3.

424.3: Addresses a problem created by some industry participants who publicly claim adherence to the provisions of NFPA-82 and falsely advertise their material thickness as 16 gage material while actually using 18 gage material. The problem most commonly occurs in Spiral Chute construction. Lighter gage material is used on the premise that 18 gage material is stronger than non-spiraled 16 gage material. This is probably true, but the reasoning is, nonetheless, fallacious. At issue are the burn-through properties of the materials. Physical strength of the material is meaningless beyond the ability of the chute to be supported as chutes convey waste materials; they do not "hold" anything. Again, the issues are Life Safety and Fire Prevention, not Structural Strength.

424.4: Presented are an option (the rectangular-equivalent concept) to permit chutes and their enclosing walls to be installed without structural interference. The importance of venting cannot be over estimated as it provides rapid relief of steam buildup in the event of sprinkler activation during a fire. This prevents the intake doors from being blown open, thereby exposing other smoke protection zones from becoming engaged in the fire.

424.5 and subparagraphs: The proposed additions are designed to overcome common mistakes that most commonly, but not exclusively, occur in wood frame structures. The single side construction concept is crucial as most fire wall designs require full fire taping on both sides of the wall. It is impossible to properly install all required fire taping on the inside surface of a chute enclosure because the chute is in place, as is the chute intake door. Wood framing also commonly creates problems with fire ratings at wall and floor intersection as well as at roof framing interferences.

424.6 and sub paragraphs: Electric interlocks are an extremely popular chute accessory that permits all doors to lock when one door is opened to avoid rubbish from above falling on a depositor below if two or more people are depositing waste at the same time. This is a pretty common occurrence as people tend to throw out their garbage after feeding times, causing back-ups at the intake doors. Some interlocks are manufactured in such a way that they actually energize a downward moving locking mechanism to engage when a door is opened. Said another way the interlocks are held in a retracted position by a spring and then forced down to close all the doors not in use. The problem is that these doors are not protected by the electric interlocks when power drops as it does in a fire emergency. Other manufacturers utilize a common power source ... gravity ... to engage their interlocks and retract a single interlock when the system is activated for a deposit at a specific location. In the power loss scenario, these interlocks are engaged and act as a back up system that protects the firewall penetration from unnecessary exposure in the event of the latch failure scenario described in an another proposal submitted as part of this whole chute discussion. The provisions of Section 424.6.2 is designed to provide protection to maintenance personnel in the event of compactor trouble and during the correction of that trouble.

424.7 and sub paragraph: Rubbish compactor provisions establishes the need to interconnect the electric interlock system and this common piece of equipment for the protection of both the equipment and the personnel involved. The UL standardization is a simple protective feature for building owners, residents, and maintenance personnel.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: A review of the standard proposed for inclusion in the code, NFPA 82, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: REPIC-G1-424 New

G84–09/10
424 (New)

Proponent: Gary Lewis, Chair, ICC Ad Hoc Committee on Terrorism-Resistant Buildings

Add new text as follows:

SECTION 424
BUILDINGS REQUIRING A VULNERABILITY ASSESSMENT

424.1 General. In addition to the other requirements of this code, the following buildings and other structures shall have vulnerabilities assessed and mitigated in accordance with Sections 424.2 through 424.4.

1. Buildings more than 420 feet in building height.
2. Buildings and other structures containing Group A occupancies with an occupant load greater than 10,000.
3. Buildings and other structures with an occupant load greater than 20,000.

424.2 Vulnerability assessment. A vulnerability assessment shall be performed by an approved agency with expertise in vulnerability analysis, and a report shall be provided to the building official for review and approval by the authority having jurisdiction. The analysis shall conform to the generally accepted principles and industry practices for the buildings in Section 424.1. The analysis shall assess risks under intentional threats. Documentation of the analysis shall include scope of analysis, information sources, analytic calculations and methods, findings, referenced guidelines, and suggested mitigation methods. Following acceptance by the building official, the reports and documentation shall be returned to the building owner. Retention of these documents by the building official shall not be required.

424.3 Peer review. The building official is authorized to seek an independent peer review of the vulnerability analysis, findings and proposed mitigation methods. The review shall be at the owner's expense. Upon completion, the reviewer shall submit a report to the building official, indicating the scope of the review performed and the findings of that review.

424.4 Mitigation. Risks identified in the vulnerability analysis shall be mitigated in an approved manner.

Reason: This proposal, if adopted, would add new text to the code for certain buildings of iconic classification. As the potential loads posed to these buildings by the threat of terrorist acts is generally non-quantifiable, normal design thresholds cannot be applied.

The ICC and the code community at large have been struggling since the tragic events of 9/11 to develop an appropriate response to the prospect of terrorism and terror-related events within the built environment. The ICC formulated an Ad Hoc Committee on Terrorism Resistant Buildings to deal with the issue, and assigned another standing committee, the Code Technology Committee, to review the National Institute of Standards and Technology's (NIST) Final Report of the National Construction Safety Team on the Collapses of the World Trade Center Towers.

Throughout that process, it has become apparent that the model building and fire codes do contain some vulnerabilities that had not previously been anticipated, and the codes are currently being amended. Moreso, however, that process has made clear that the solution to terrorism prevention in vulnerable buildings and facilities lies not exclusively within the model codes, but rather in a deliberate, thorough vulnerability analysis of each iconic structure *individually*, with mitigation measures tailored to the level of threat determined by the analysis in each case.

This is not a new concept (References 1 to 9). The federal government has been conducting such analyses on select federal facilities for years now, as have a number of private developers of signature projects such as arenas, malls and super high-rise buildings. It is important to note that this provision does not change anything required of construction under the IBC, nor does it require that the building official become an expert in homeland security matters. A project developer of a new building under the very limited scope of this proposal --- 420 feet represents about 38 stories, or very large assembly arenas or super malls --- would simply have to engage an additional expert as part of their design team to conduct a vulnerability analysis. We would suggest to the membership that such a review is already being conducted now anyway in many cases, driven by the private sector.

It is anticipated that the building code official would engage a peer reviewer, one with the same or similar qualifications as the entity which completed the initial assessment analysis, at the owner's expense, to review the report and documentation and issue a response, ultimately resulting in consensus between the experts as to the risk and the appropriate mitigation measures to be taken during the project and post-occupancy.

The structural engineering community brought forth this proposal in Palm Springs, among other reasons because the load or threat to be considered and designed for in the realm of terrorism is not readily quantifiable, thereby making the solution impossible on a broad brush basis. We believe that a very limited, judicious approach to threat assessment and vulnerability analysis is the overall best response to the threat of terrorism.

Interested parties can find additional resources on this subject via the following links:

http://www.dhs.gov/index.shtm
http://www.tswg.gov/
http://www.fema.gov/pdf/plan/prevent/rms/155/e155_unit_iv.pdf
http://www.fema.gov/library/viewRecord.do?id=1939
http://www.fema.gov/plan/prevent/rms/rmsp452.shtm
http://www.fema.gov/rebuild/mat/index.shtm
http://www.fema.gov/about/regions/regionii/toolkit_risk.shtm

References:

1. FEMA 426, Reference manual to Mitigate Terrorist Attacks Against Buildings, http://www.fema.gov/plan/prevent/rms/rmsp426
2. FEMA 427, Primer for Design of Commercial Buildings to Mitigate Terrorist Attacks, http://www.fema.gov/plan/prevent/rms/rmsp427
3. FEMA 459, Incremental Protection for Existing Commercial Buildings from Terrorist Attack, http://www.fema.gov/library/viewRecord.do?id=3270
4. Facilities Standards for the Public Building Service, http://www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/p100-2003c8_R2E-qD-b_0Z5RDZ-i34K-pR.pdf
5. Homeland Security Centers of Excellence, http://www.dhs.gov/xres/programs/editorial_0498.shtm
6. Infrastructure and Geophysical Projects, http://www.dhs.gov/xres/programs/gc_1218480826191.shtm#9
7. FEMA 427, "Primer for Design of Commercial Buildings to Mitigate Terrorist Attacks," http://www.fema.gov/plan/prevent/rms/rmsp427
8. Recommended Security Guidelines for Airport Planning, Design and Construction, http://www.tsa.gov/assets/pdf/airport_security_design_guidelines.pdf
9. USDOJ, A Method to Assess the Vulnerability of U.S. Chemical Facilities, http://www.fas.org/sgp/crs/RL32670.pdf

Cost Impact: The code change proposal will not increase the cost of construction. The Committee recognizes that the provision for additional expertise in the preliminary design stage will result in some additional expense; the requirement is, therefore, very targeted in scope and applies to a very small subset of structures in the built environment.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: LEWIS-G2-424.doc

G85–09/10
503.1, Table 503, 507.1

Proponent: Rick Thornberry, PE, The Code Consortium, Inc., representing self

Revise as follows:

503.1 General. The building height and area shall not exceed the limits specified in Table 503 based on the type of construction as determined by Section 602 and the occupancies as determined by Section 302 except as modified ~~hereafter~~ by Sections 503.1.1 through 503.1.5 and Sections 504, 506.2 and 506.3. Each portion of a building separated by one or more fire walls complying with Section 706 shall be considered to be a separate building.

503.1.1 Special industrial occupancies. Buildings and structures designed to house special industrial processes that require large areas and unusual building heights to accommodate craneways or special machinery and equipment, including, among others, rolling mills; structural metal fabrication shops and foundries; or the production and distribution of electric, gas or steam power, shall be exempt from the building height and area limitations of Table 503.

503.1.2 Buildings on same lot. Two or more buildings on the same lot shall be regulated as separate buildings or shall be considered as portions of one building if the building height of each building and the aggregate building area of the buildings are within the limitations of Table 503 as modified by Section 504 and 506. The provisions of this code applicable to the aggregate building shall be applicable to each building.

503.1.3 Type I construction. Buildings of Type I construction permitted to be of unlimited tabular building heights and areas are not subject to the special requirements that allow unlimited area buildings in Section 507 or unlimited building height in Sections 503.1.1 and 504.3 or increased building heights and areas for other types of construction.

503.1.4 Unlimited area buildings. The area of buildings complying with Section 507 shall not be limited by Table 503.

503.1.5 Special provisions. The height and area of buildings complying with Section 509, as applicable, shall not be limited by Table 503.

TABLE 503
ALLOWABLE BUILDING HEIGHTS AND AREAS[a]

(Portions of table not shown remain unchanged)

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m^2

A = building area per story. S= stories above grade plane, UL = Unlimited, NP = Not permitted.

~~a. See the following sections for general exceptions to Table 503:~~
~~1. Section 504.2, Allowable building height and story increase due to automatic sprinkler system installation.~~
~~2. Section 506.2, Allowable building area increase due to street frontage.~~
~~3. Section 506.3, Allowable building area increase due to automatic sprinkler system installation.~~
~~4. Section 507, Unlimited area buildings.~~
~~b.~~ a. For open parking structures, see Section 406.3.
~~c.~~ b. For private garages, see Section 406.1.
~~d.~~ c. See Section 415.5 for limitations.

507.1 General. The area of buildings of the occupancies and configurations specified herein shall not be limited by Table 503.

Reason: This code change proposal is editorial. Basically, it deletes Footnote a from Table 503 and incorporates it into the text of the code. We believe that code requirements are better addressed in the body of the code rather than as footnotes to a table unless the footnotes are very specific to the table and not general in nature. However, Footnote a is somewhat broad and can be better handled, in our opinion, by relocating the text to Section 503.1 and making a clarification to Section 507.1. And in order to make Section 503.1 more comprehensive regarding how Table 503 is intended to regulate the allowable building heights and areas, we have incorporated new Subsection 503.1.4 addressing unlimited area buildings regulated by Section 507 and Subsection 503.1.5 Special Provisions regulating heights and areas of buildings complying with Section 509. Thus, the user of the code can find all he or she needs to know regarding the determination of building height and area limitations based on the application of Table 503 and the cases where modifications and/or exceptions are made to that table in accordance with the applicable provisions of the sections referenced in Section 503.1 including its subsections.

The proposed revision to Section 507.1 merely correlates with the revisions made to Section 503.1 to indicate that the building area is not limited by Table 503 for these unlimited area buildings.

In conclusion, we believe that these editorial revisions will provide for better code interpretation, application, and enforcement.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: Thornberry-G1-503

G86–09/10
503.1.4 (New)

Proponent: Sarah A. Rice, CBO, representing self

Add new text as follows:

503.1.4 Occupancies on roofs. Open-air roofs occupied by an occupancy different than the primary occupancy of the building shall not be required to be taken into account when determining the minimum type of construction for the building when the means of egress system from the open-air roof complies with Chapter 10.

> **Exception:** Open-air roofs of buildings of Groups A, B, E, F-2, I, M, R and S-2 occupancies shall not be occupied by Group S-1, F-1 or H occupancies.

Reason: Occupied roof gardens, pool levels and similar uses are literally classified as Group A-3 occupancies but the hazard they present to the building is minimal. So this change proposes that even though their occupancy is Group A-3 (assembly) for determining the minimum level of means of egress from that level, the building not be penalized for their location.

Should a fire incident occur, the very openness of the space will provide venting of any smoke or hot gases that may be generated, in other words it will offer the perfect smoke control system.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RICE-G6-503.1.4.doc

G87–09/10
503.1.4 (New)

Proponent: Ken Kraus, Los Angeles, CA Fire Department

Add new text as follows:

503.1.4 Occupancy location. An occupancy shall not be located above the story or height limit set forth in Table 503. Where Section 504.2 allows modifications to limits of Table 503, occupancies shall not located above the additional story or increased height limit.

Reason: This proposed addition to the Code is intended to clearly disallow the occupancy of roof areas and stories above the height and story limits prescribed in Table 503 and Section 504.2.

As written, the code can be misapplied if areas above the floor level of the highest story allowed (roof and floor surfaces) are considered part of the highest story allowed for occupant use.

This is due to misinterpretation of the definition of Story which states, in part “The portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above”.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KRAUS-G1-503.1.4

G88–09/10
Table 503

Proponent: Daniel E. Nichols, PE, New York State Dept. of State, Div. of Code Enforcement and Administration, Ken Kraus, City of Los Angeles Fire Department

Revise table as follows:

TABLE 503
ALLOWABLE BUILDING HEIGHTS AND AREAS[a]
Building height limitations shown in feet above grade plane. Story limitations shown as stories above grade plane.
Building area limitations shown in square feet, as determined by the definition of "Area, building," per story

GROUP		TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
	HEIGHT (feet)	UL	160	65	55	65	55	65	50	40
	STORIES(S) AREA (A)									
H-2[d]	S	~~UL~~ 4	3	2	1	2	1	2	1	1
	A	21,000	16,500	11,000	7,000	9,500	7,000	10,500	7,500	3,000

(Portions of table not shown remain unchanged)

Reason: H-2 occupancies are defined as "Buildings and structures containing materials that pose a deflagration hazard or a hazard from accelerated burning." The principal difference between a Group H-1 and H-2 occupancy, by definition, is that the velocity of the spread of the fire. There is not a difference in the severity of fire in a Group H-2 when compared to a Group H-1, after the initial ignition. Examples of hazards that can be found within Group H-2 occupancies include pyrophoric materials, flammable gases, peroxides, and flammable cryogenic fluids.

This proposal limits the floor level of Group H-2 occupancies to four stories. The four story number is based on the limit of H-5 occupancies, where materials like pyrophoric materials and flammable gases are commonly used in a much more controlled atmosphere. The reason to place a limit on Group H-2 occupancies is recognizing the severe fire hazard and the adverse effect for firefighting purposes. An uncontrolled fire within a Group H-2 occupancy will be more than likely fought from the exterior of the building. Placing a Group H-2 occupancy at higher levels will impede safe firefighting operations.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: NICHOLS-G5-TABLE 503.doc

G89–09/10
Table 503

Proponent: Jason Thompson, National Concrete Masonry Association, representing the Masonry Alliance for Codes and Standards

Revise table as follows:

TABLE 503
ALLOWABLE HEIGHT AND BUILDING AREAS[a]

GROUP		TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
	HEIGHT (feet)	UL	160	65	55	65	55	65	50	40
	STORIES (S) AREA (A)									
R-1	S	UL	11	4	~~4~~ 3	4	~~4~~ 3	4	3	2
	A	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
R-2	S	UL	11	4	~~4~~ 3	4	~~4~~ 3	4	3	2
	A	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
R-4	S	UL	11	4	~~4~~ 3	4	~~4~~ 3	4	3	2
	A	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000

(Portions of table and footnotes not shown remain unchanged)

Reason: One area of concern identified for study by the ICC Code Technology Committee's Height and Area Study Group was 4 and 5 story buildings of non-fire-resistance-rated types of construction. The table below shows the occupancies in the 2006 International Building Code (IBC) where that condition existed for sprinklered buildings of Types IIB and IIIB construction. In addition, the table shows the sprinklered height allowances for these occupancies in the legacy codes.

Type IIB and Type IIIB Construction
Story Comparison (w/ NFPA 13 Sprinkler System)

	SBC	NBC	UBC	2006 IBC
B	5	4	2	**5**
F-2	4	4	2	**4**
M	5	3	2	**5**
S-1	4	3	2	**4**
S-2	4	4	2	**5**
R* (NFPA 13)	5	4	4	**5**
R* (NFPA 13R)	4	4	3	**4**

* - Applies for R-1, R-2 and R-4 Use Groups

The Study Group noted that for Use Group B, M, S-1, and R buildings of Type IIB and Type IIIB construction, the allowance for 4 or 5 stories in the IBC was premised on the story heights allowed in the SBCCI Standard Building Code (SBC). In all these instances, the SBC sprinklered height allowance for those Use Groups was based on a multiple story sprinkler increase. For example, for Use Group R, the SBC allowed 2 stories for unsprinklered construction and 5 stories for sprinklered construction. This exceeded the consistent one story sprinkler height increase incorporated in the IBC height and area provisions. Based on this review, the Study Group identified two anomalies from what was permitted by the legacy codes. First, the story height allowance for S-2 use groups was not based on any of the legacy code allowances. Second, for Use Groups B, M, S-1, and R in Types IIB and IIIB construction, the IBC story height allowance for unsprinklered buildings exceeded what was allowed by any of the legacy codes. For example, the largest height allowed for an unsprinklered Type IIB construction apartment building (Group R-2 occupancy) in any of the legacy codes was the BOCA National Building Code (NBC) allowance for 3 stories. Currently, the IBC allows 4 stories for this condition. Rather than modify the sprinkler increase in the IBC, the Study Group suggested the following recommended story heights for Table 503:

Unsprinklered 2006 IBC Table 503 Values (Revised)

Use Group	IIB	IIIB
B	3	3
M	2	2
S-1	2	2
S-2	3	3
R*	3	3

* - Applies for R-1, R-2 and R-4 Use Groups

In essence, these reductions would eliminate the anomalies created by the multi-story SBC sprinkler increase and drop the IBC values back to the next least restrictive legacy code (in these cases, the NBC). It should be noted that during the ICC Final Action Hearings in Minneapolis for the last code cycle, all of the code changes submitted by the Study Group to reduce the allowable story heights were approved by the ICC Class A voting members with a greater than two-thirds majority vote except for one. That one was Code Change G118-07/08 which is identical to this code change proposal. Although the voting members were able to overturn the Committee's recommendation for disapproval, the code change was subsequently disapproved because the two-thirds (67%) majority vote could not be achieved. The final vote was 243 in favor and 163 opposed (60%). Since a significant majority of the Class A voters wanted to see that code change approved, the change is being resubmitted for reconsideration by the IBC General Committee.

Although the proposal will reduce the allowable height of Group R buildings of Types IIB and IIIB construction by one story, the maximum area (total of all stories) of the tallest building that will then be permitted will generally still be considerably greater than that permitted by any of the legacy codes (see table below). For example, consider a residential building (Group R occupancy) of Type IIB construction, which does not have an NFPA 13 sprinkler system, with a height of 3 stories; the tallest permitted by any of the legacy codes. If less than 20 feet of open space is provided around the building, the IBC permits the total area of all three stories to be 108% greater than the largest total area permitted by the legacy codes. If the width of the open space is increased to 40 feet, the IBC's total area allowed is still 27% greater than the largest area allowed by any of the legacy codes. If an NFPA 13 sprinkler system is provided in a Group R residential building of Type IIB construction, the height of the building can be increased to four stories. If the building has less than 20 feet of open space, the maximum area allowed by the IBC is 50% greater than the largest area allowed by any of the legacy codes. Although allowable heights are proposed to be reduced, the foregoing illustrates that residential buildings will still be able to have total areas that are comparable to or greater than that permitted by the largest areas allowed by any of the legacy codes.

It should be noted that this proposal has no impact on residential buildings equipped with NFPA 13R or NFPA 13D sprinklers since they are not currently allowed to use the height increase for sprinklers.

Occupancy Group	Type of Construction	NFPA 13 Sprinklers – Yes/No	Width of Open Space (ft.)[a, b]	Ratio of IBC Maximum Building Area to the Largest Maximum Building Area Permitted by Legacy Codes				
				Number of Stories				
				1	2	3	4	5
R-1 R-2 R-4	IIB	No	< 20	1.33	1.33	2.08	NPLC	NP
			40	1.17	1.17	1.27	NPLC	NP
		Yes	< 20	1.78	1.67	2.00	1.50	1.20
			40	1.39	1.39	1.67	1.25	1.00
	IIIB	No	< 20	1.33	1.33	2.08	NPLC	NP
			40	1.17	1.17	1.27	NPLC	NP
		Yes	< 20	1.78	1.67	2.00	1.50	1.20
			40	1.39	1.39	1.67	1.25	1.00

NPLC means not permitted by any of the legacy codes, but permitted by the IBC.
NP means not permitted by any of the legacy codes or the IBC.
If this code change is approved, building heights represented by shaded cells will not be permitted by the IBC.

a. Width of open space around 100% of building perimeter.
b. 40 feet was used because the ICBO Uniform Building Code (UBC) required a minimum 40 feet of open space on all sides of the building in order to qualify for a 100% area increase; the maximum permitted by that code. The NBC and SBC permitted maximum open space increases of 150% and 100%, respectively, at 30 feet.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THOMPSON-G2-T503

G90–09/10
Table 503

Proponent: A. Hal Key, PE, Mesa, AZ Fire Department

Revise as follows:

TABLE 503
ALLOWABLE BUILDING HEIGHTS AND AREAS[a]
Building height limitations shown in feet above grade plane. Story limitations shown as stories above grade plane.
Building area limitations shown in square feet, as determined by the definition of "Area, building," per story

		TYPES OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
	Height(feet)	UL	160	65	55	65	55	65	50	40
GROUP	STORIE(S) AREA (A)									
S-1[e]	S	UL	11	4	2	3	2	4	3	1
	A	UL	48,000	26,000	17,500	26,000	17,500	25,500	14,000	9,000

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929m2.
A = building area per story, S = stories above grade plane, UL = Unlimited, NP = Not permitted.

a. See the following sections for general exceptions to Table 503:
   1. Section 504.2, Allowable building height and story increase due to automatic sprinkler system installation.
   2. Section 506.2, Allowable building area increase due to street frontage.
   3. Section 506.3, Allowable building area increase due to automatic sprinkler system installation.
   4. Section 507, Unlimited area buildings.
b. For open parking structures, see Section 406.3.
c. For private garages, see Section 406.1.
d. See Section 415.5 for limitations.
e. For aircraft hangars, see Section 412.2.

(Portions of table not shown remain unchanged)

Reason: During the last cycle, changes were made to Section 412.2 classifying aircraft hangars by the NFPA 409 classifications to determine the fire suppression requirements. These changes created area limitations that a user of the Building Code may not find without going to Section 412.2. The addition of footnote "e" sends the user of the Building Code to this section similarly to other footnotes found in this table.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KEY-G1-TABLE 503.doc

G91–09/10
504.2

Proponent: Jason Thompson, National Concrete Masonry Association, representing the Masonry Alliance for Codes and Standards

Revise as follows:

504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one story. These increases are permitted in addition to the area increase in accordance with Sections 506.2 and 506.3. ~~For Group R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one story, but shall not exceed four stories or 60 feet (19 288 mm), respectively.~~

Exceptions:

1. Buildings, or portions of buildings, classified as a Group I-2 occupancy of Type IIB, III, IV or V construction.
2. Buildings, or portions of buildings, classified as a Group H-1, H-2, H-3 or H-5 occupancy.
3. *Fire-resistance rating* substitution in accordance with Table 601, Note d.

Reason: This code change proposes to eliminate the special allowances given for Group R occupancy buildings that are protected with an NFPA 13R automatic sprinkler system as specified in Section 903.3.1.2. Currently, Section 504.2 will allow an increase in the building height of one story and 20 feet where an NFPA 13R sprinkler system is provided, as long as the building does not exceed a total height of four stories or 60 feet. Furthermore, Section 506.4 allows an area increase for the installation of an NFPA 13R sprinkler system for Group R buildings that are greater than three stories in height. It is not appropriate to provide for both an allowance of an area increase and height increase for the types of construction. Where an NFPA 13R sprinkler system is installed the net result in the overall level of safety is a lessening of the passive built-in fire resistance that would be required if one of the NFPA 13R reductions (area or height) were not permitted.

NFPA 13R sprinkler systems primarily provide for life safety in buildings. They were developed for that purpose as clearly stated in Section 1.2 of the 2002 edition of the standard. It is interesting to note the Annex A discussion of the purpose of NFPA 13R which states: "Various levels of sprinkler protection are available to provide life safety and property protection. This standard is designed to provide a high, but not absolute, level of life safety and a lesser level of property protection. Greater protection to both life and property could be achieved by sprinklering all areas in accordance with NFPA 13… it should be recognized that the omission of sprinklers from certain areas could result in the development of untenable conditions in adjacent spaces. Where evacuation times could be delayed, additional sprinkler protection and other fire protection features, such as detection and compartmentation, could be necessary." That statement says it all about an NFPA 13R sprinkler system.

The intent of the IBC as expressed in Section 101.3 Intent is as follows: "The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare… and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations." Allowing the use of an NFPA 13R sprinkler system to increase the size of a building is counter to the intent and purpose of the IBC. Types of construction are designed to limit the height and area of buildings based on the occupancy and the degree of built-in fire-resistive protection and use of combustible or noncombustible construction materials. Buildings are allowed to get larger in area and taller in height with more fire-resistance built in and the reduced use of combustible construction for the building's structural elements. Therefore, property protection is a primary outcome of the types of construction used. Of course, type of construction also plays a role in life safety, especially in multi-story buildings, and has an impact on fire fighter safety as well. But an NFPA 13R sprinkler system is basically a partial sprinkler system because the standard does not require sprinklers in many concealed combustible areas including attics. So why should a building protected with an NFPA 13R sprinkler system be given the same credit for a building with more complete protection based on NFPA 13 sprinkler system?

Within the last few years there have been many fires involving buildings protected with NFPA 13R sprinkler systems which have burned to the ground. In most of those cases, the fire was able to get into the unprotected combustible attic space and spread throughout the building and then burn downward, overpowering the sprinkler system. It is not logical to allow increases in height and area for sprinkler systems that can not reduce the risk of a building being burned to the ground.

There have been several code changes in the recent two cycles to eliminate this height increase for NFPA 13R sprinkler systems. Though not previously approved the Masonry Alliance for Codes and Standards (MACS) still agrees with the previous proponents' supporting statements on why this reduction is not warranted. The issues have been clearly stated and adequate reasons given to support this particular code change proposal. Therefore, we respectfully request the Committee approve this code change proposal as submitted for the reasons stated.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THOMPSON-G6-504.2

G92–09/10
504.2, 506.3

Proponent: Robert J Davidson, Code Consultant, Alan Shuman, President, representing the National Association of State Fire Marshals (NASFM)

Revise as follows:

504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. These increases are permitted in addition to the area increase in accordance with Section~~s~~ 506.2 ~~and 506.3~~. For Group R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall not exceed 60 feet (18 288 mm) or four stories, respectively.

Exceptions~~:~~ The use of an automatic sprinkler system to increase building heights shall not be permitted for the following conditions:

1. Buildings, or portions of buildings, classified as a Group I-2 occupancy of Type IIB, III, IV or V construction.
2. Buildings, or portions of buildings, classified as a Group H-1, H-2, H-3 or H-5 occupancy.
3. ~~Fire-resistance rating substitution~~ Buildings where an automatic sprinkler system is substituted for fire-resistance rated construction in accordance with Table 601, Note d.
4. Buildings where an automatic sprinkler system is used to increase the building height or number of stories accordance with Section 506.3.

506.3 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the area limitation in Table 503 is permitted to be increased by an additional 200 percent (I_s = 2) for buildings with more than one story above grade plane and an additional 300 percent (I_s = 3) for buildings with no more than one story above grade plane. ~~These increases are permitted in addition to the height and story increases in accordance with Section 504.2.~~

Exception: The use of an automatic sprinkler system to increase the building area limitation ~~increases~~ shall not be permitted for the following conditions:

1. ~~The automatic sprinkler system increase shall not apply to~~ ~~Buildings with an occupancy in Group H-1~~. Buildings classified as a Group H-1 occupancy.
2. ~~The automatic sprinkler system increase shall not apply to the building area of an occupancy in Group H-2 or H-3~~. Buildings, or portions of buildings, classified as either a Group H-2 or H-3 occupancy. For buildings containing such occupancies, the allowable area shall be determined in accordance with Section 508.4.2, with the sprinkler system increase applicable only to the portions of the building not classified as Group H-2 or H-3.
3. Buildings where an automatic sprinkler system is substituted for fire-resistance rated construction ~~Fire-resistance rating substitution~~ in accordance with Table 601, Note d.
4. Buildings where an automatic sprinkler system is used to increase the building height or number of stories in accordance with Section 504.2.

Reason: In reviewing this comment we ask that you keep in mind that when the IBC was created, there was a policy decision made that when merging the three legacy codes into one, any conflict between legacy code provisions would default to the lesser requirement. This reportedly was done to avoid adoption problems for jurisdictions when moving to the IBC from a legacy code, i.e., if the new code was more restrictive there could be opposition to adoption. The concept of balance is constantly bandied about when examining specific code provisions in that when looking at the code as a whole, one requirement balances out the other. This concept is spoken of specifically when dealing with automatic sprinkler system trade offs. If we accept the fact that the three separate legacy codes were balanced, i.e., they had some requirements less restrictive than the same topic in another legacy code but they had other topics that were more restrictive, what happened when we merged the three codes? We went through and took the lowest requirement from each code without taking the more restrictive. What happened to the balancing effect that each legacy code had developed over the years? It does not exist in the IBC.

Another way to look at this issue is that in many jurisdictions the building code is the minimum standard to apply, in some it is the minimum and the maximum standard, (mini-max code). In any jurisdiction that previously applied one of the legacy codes, at the time they had a legacy code effective, the current IBC provisions would be less than that applicable code permitted. In other words, application of many of the provisions in the IBC would be illegal. It is for that reason we seek to reduce the size of some of the buildings permitted to be built under the IBC to start to bring balance back to the code.

Those of us that have been proposing to modify some of the height and area requirements have been asked by opponents why we are so focused on this issue, what is so wrong with the height and areas. To be honest, we are not focused on this one issue. We have been active in many areas of the code we felt need clarification or tightening of requirements. But our specific interest in the height and area is because of the cumulative effect of the process we describe in the first two paragraphs of this reasoning statement.

We not only get bigger buildings under the IBC as compared to various legacy codes, we get them with less protective features and a reduced ability to withstand attack by fire. In much of the country Type 1A construction required 4 hour protection. Now it only requires 3 hour protection. So the buildings are bigger and when attacked by fire they may come down quicker.

The size of the buildings directly relates to how much area a responding fire department must deal with and possibly how much area must be searched. No one checked with the fire service to see if their manning levels could handle the increased size allowance coupled with the reduction in protection features. Take a look at the legacy codes and compared the restrictions on communicating floor levels with what the IBC allows now. So not only are the buildings bigger with reduced fire resistance requirements, we now allow the smoke and heat to travel to more of the building.

The answer we get on this topic is that the buildings in question will have an automatic fire suppression system and that takes care of all of your concerns. Though we are strong believers in the installation of automatic sprinkler systems and we would like to eventually see them installed in all buildings and structures, we also believe in striking a balance. Being safe means not relying on a single method of protection, or in this case a single protective system.

This position is supported by the recent NFPA report, "U.S. Experience with Sprinklers and Other Automatic Fire Extinguishing Equipment", http://www.nfpa.org/assets/files//PDF/OSsprinklers.pdf . Though overall sprinklers operate in 95% of all reported structure fires and are effective 96% of that time, resulting in a combined overall effectiveness of 91%. The actual percentage changes based upon occupancy with warehouses at the 78% level.

They are out of service for maintenance, construction, (tenant improvements), unintentional human error. There is also a vulnerability factor- besides seismic, we have experience where systems were taken out by vehicle crash or explosion. In instances of improper design/use or arson, the system can be overcome. Most sprinkler systems as designed don't extinguish the fire, they only control it and there can be tremendous smoke generation and spread (particularly smoldering or shielded fires, etc). In fact, sprinklers drive the smoke lower and impede visibility, building size becomes more of an issue to both rescue (panic) and firefighting.

To balance this out we seek buildings to have increased fire-resistive design and they get larger. The larger the building the more time the fire service needs to deal with rescue and fire extinguishment. The more time the fire service needs to be in the building during adverse conditions, the better protected the building needs to be.

This proposal seeks to strike a balance. An increase would still be permitted based upon the presence of the automatic sprinkler protection, but a choice would have to be made to take either an area increase or a height increase, not both.

This proposal does not stop larger buildings from being constructed, what it does is change the trigger for the use of non-combustible versus combustible types of construction and changes the trigger of when protected types of construction would be required and at what fire resistance rating to building a larger building.

As already stressed fire departments suffer through wave after wave of cut backs in staff, equipment and fire stations, this issue increases in importance every day.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: DAVIDSON-SHUMAN-G4-504.2.doc

G93–09/10
505.1 through 505.5.3

Proponent: Sarah A. Rice, CBO, representing self

Revise as follows:

SECTION 505
MEZZANINES AND EQUIPMENT PLATFORMS

505.1 General. Mezzanines shall comply with Section 505.2. Equipment platforms shall comply with Section 505.3.

505.2 Mezzanines. A mezzanine or mezzanines in compliance with Section ~~505~~ 505.2 shall be considered a portion of the story below. Such mezzanines shall not contribute to either the building area or number of stories as regulated by Section 503.1. The area of the mezzanine shall be included in determining the fire area defined in Section 702. The clear height above and below the mezzanine floor construction shall not be less than 7 feet (2134 mm).

505.2.1 Area limitation. The aggregate area of a mezzanine or mezzanines within a room shall not exceed one-third of the floor area of that room or space in which they are located. The enclosed portion of a room shall not be included in a determination of the floor area of the room in which the mezzanine is located. In determining the allowable mezzanine area, the area of the mezzanine shall not be included in the floor area of the room.

Where a room contains both a mezzanine and an equipment platform the aggregate area of the two raised floor levels shall not exceed two thirds of the floor area of that room or space in which they are located with neither occupying more than one-third of the floor area of the room..

Exceptions:

1. The aggregate area of mezzanines in buildings and structures of Type I or II construction for special industrial occupancies in accordance with Section 503.1.1 shall not exceed two-thirds of the area of the room.
2. The aggregate area of mezzanines in buildings and structures of Type I or II construction shall not exceed one-half of the area of the room in buildings and structures equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 and an approved emergency voice/alarm communication system in accordance with Section 907.2.12.2.

~~**505.3**~~ **505.2.2 Egress.** Each occupant of a mezzanine shall have access to at least two independent means of egress where the common path of egress travel exceeds the limitations of Section 1014.3. Where a stairway provides a means of exit access from a mezzanine, the maximum travel distance includes the distance traveled on the stairway measured in the plane of the tread nosing. Accessible means of egress shall be provided in accordance with Section 1007.

Exception: A single means of egress shall be permitted in accordance with Section 1015.1.

~~**505.4**~~ **505.2.3 Openness.** A mezzanine shall be open and unobstructed to the room in which such mezzanine is located except for walls not more than 42 inches (1067 mm) high, columns and posts.

Exceptions:

1. Mezzanines or portions thereof are not required to be open to the room in which the mezzanines are located, provided that the occupant load of the aggregate area of the enclosed space does not exceed 10.
2. A mezzanine having two or more means of egress is not required to be open to the room in which the mezzanine is located if at least one of the means of egress provides direct access to an exit from the mezzanine level.
3. Mezzanines or portions thereof are not required to be open to the room in which the mezzanines are located, provided that the aggregate floor area of the enclosed space does not exceed 10 percent of the mezzanine area.
4. In industrial facilities, mezzanines used for control equipment are permitted to be glazed on all sides.
5. In other than Groups H and I occupancies no more than two stories in height above grade plane and equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, a mezzanine having two or more means of egress shall not be required to be open to the room in which the mezzanine is located.

~~**505.5**~~ **505.3 Equipment platforms.** Equipment platforms in buildings shall not be considered as a portion of the floor below. Such equipment platforms shall not contribute to either the building area or the number of stories as regulated by Section 503.1. The area of the equipment platform shall not be included in determining the fire area. Equipment platforms shall not be a part of any mezzanine and such platforms and the walkways, stairs and ladders providing access to an equipment platform shall not serve as a part of the means of egress from the building.

~~**505.5.1**~~ **505.3.1 Area limitations.** The aggregate area of all equipment platforms within a room shall not exceed two-thirds of the area of the room in which they are located. Where an equipment platform is located in the same room as a mezzanine, the area of the mezzanine shall be determined by Section ~~505.2~~ 505.2.1 and the combined aggregate area of the equipment platforms and mezzanines shall not exceed two-thirds of the room in which they are located.

Exception. Where a room contains both a mezzanine and an equipment platform the aggregate area of the two raised floor levels shall not exceed two thirds of the floor area of that room or space in which they are located.

[F] ~~**505.5.2**~~ **505.3.2 Fire suppression.** Where located in a building that is required to be protected by an automatic sprinkler system, equipment platforms shall be fully protected by sprinklers above and below the platform, where required by the standards referenced in Section 903.3.

~~**505.5.3**~~ **505.3.3 Guards.** Equipment platforms shall have guards where required by Section 1013.1.

Reason: To clarify which provisions apply to mezzanines and which ones apply to equipment platforms and to address when you have both types of raised platforms in one room.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RICE-G8-505.doc

G94–09/10
505.2

Proponent: Homer Maiel, PE, CBO, City of San Jose**,** representing ICC Tri-Chapter (Peninsula, East Bay, Monterey Bay)

Revise as follows:

505.2 ~~Area limitation~~ Limitations. Limitations on area and levels of mezzanines shall be in accordance with Sections 505.2.1 and 505.2.2.

505.2.1 Area. The aggregate area of a mezzanine or mezzanines within a room shall not exceed one-third of the floor area of that room or space in which they are located. The enclosed portion of a room shall not be included in a determination of the floor area of the room in which the mezzanine is located. In determining the allowable mezzanine area, the area of the mezzanine shall not be included in the floor area of the room.

Exceptions:

1. The aggregate area of mezzanines in buildings and structures of Type I or II construction for special industrial occupancies in accordance with Section 503.1.1 shall not exceed two-thirds of the floor area of the room.
2. The aggregate area of mezzanines in buildings and structures of Type I or II construction shall not exceed one-half of the floor area of the room in buildings and structures equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 and an approved emergency voice/alarm communication system in accordance with Section 907.2.12.2.

505.2.2 Levels. There shall not be more than two levels of mezzanines in a room.

Reason: This addition to the code is required in order to limit the number of levels that can be built in one room. By not having any limitations on the levels, a high-ceiling room with many levels can be created; hence, an atrium. Limiting to two levels, will be in conformance with Exception in Section 404.5 where smoke control system will be required when number of stories (or levels, in this case) exceed two. Since a mezzanine is located above the floor of which the mezzanine is considered a part of, untenable smoke concentrations and the associated loss of visibility due to smoke obscuration may affect the mezzanine level. The occupants of the mezzanine by means of sight, smell or hearing will have to be able to determine if there is some emergency or fire that takes place on other mezzanines or in the room in which the mezzanine is located. Allowing more than two levels of mezzanines could compromise this feature.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MAIEL-G2-505.2

G95–09/10
505.3

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

505.3 Egress. The means of egress for mezzanines shall comply with the applicable provisions of Chapter 10. ~~Each occupant of a *mezzanine* shall have access to at least two independent *means of egress* where the *common path of egress travel* exceeds the limitations of Section 1014.3. Where an unenclosed *stairway* provides a means of *exit access* from a *mezzanine*, the maximum travel distance includes the distance traveled on the *stairway* measured in the plane of the tread nosing. *Accessible means of egress* shall be provided in accordance with Section 1007.~~

~~**Exception:** A single *means of egress* shall be permitted in accordance with Section 1015.1.~~

Reason: A review of current Section 505.3 mezzanine egress requirements reveals a restatement of some, but not all, means of egress design requirements. Such partial cross-references can be confusing for code users. Some practitioners might assume that those provisions (such as separation or arrangement of multiple exits or access to exits) that are not stated, do not apply. The current first sentence of Section 505.3 readdresses common path of egress travel requirements. The definition of "Common Path of Egress Travel," Section 1014.3 and Section 1015.1 all state or infer that common path of egress travel provisions apply to all portions of the exit access—to include mezzanines. The last sentence reinforces the concept of accounting for exit access travel distance on unenclosed interior stairways, a fundamental provision of Section 1016.1. Lastly, Section 1015.1 numbers of exit or exit access requirements stand on their own merit. They are universally applicable to all spaces in the exit access portion of the means of egress system, to include mezzanines.

In summary, means of egress requirements from a mezzanine are no different than from any other room, space or area within the exit access portion of the means of egress system. The incomplete restatement of certain means of egress design requirements erroneously alludes to the notion that there may be special means of egress requirements for mezzanines. It is felt that a simple and appropriate reference to applicable Chapter 10 provisions would clarify intent and lend to the more consistent design of means of egress from mezzanines.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KEITH-G2-505.3.doc

G96–09/10
506.2.1, 507.1

Proponent: Jerry R. Tepe, JRT-AIA Architect, representing American Institute of Architects

Revise as follows:

506.2.1 Width limits. The value of *W* shall be at least 20 feet (6096 mm). Where the value of *W* varies along the perimeter of the building, the calculation performed in accordance with Equation 5-2 shall be based on the weighted average of each portion of *exterior wall* and open space where the value of *W* is greater than or equal to 20 feet (6096 mm). Where the value of *W* exceeds 30 feet (9144 mm), a value of 30 feet (9144 mm) shall be used in calculating the weighted average, regardless of the actual width of the open space. *W* shall be measured perpendicular from the face of the building to the closest interior *lot line*. Where the building fronts on a *public way*, the entire width of the *public way* shall be used. Where two or more buildings are on the same lot, *W* shall be measured from the exterior face of a building to the exterior face of an opposing building, as applicable.

> **Exception:** The value of *W* divided by 30 shall be permitted to be a maximum of 2 when the building meets all requirements of Section 507 except for compliance with the 60-foot (18 288 mm) *public way* or *yard* requirement, as applicable.

507.1 General. The area of buildings of the occupancies and configurations specified ~~herein~~ Sections 507.1 through 507.12 shall not be limited. Where Sections 507.2 through 507.12 require buildings to be surrounded and adjoined by public ways and yards, those open spaces shall be determined as follows:

1. Yards shall be measured from the building perimeter in all directions to the closest interior lot lines or to the exterior face of an opposing building located on the same lot, as applicable.
2. Where the building fronts on a public way, the entire width of the public way shall be used.

Reason: Section 506.2.1: The change provides further clarification on how to measure the value "W." The IBC currently does not provide this. The IBC does provide guidance on the fire separation distance (FSD) in Chapter 7, but is not the proper way to measure "W" and often is mistakenly used or enforced as the required method. The only real difference is in determining "W" the entire width of a public way is used, whereas when determining the FSD, the measurement is taken to the centerline of the public way as the other half belongs to the building(s) on the opposite side. Current text already addresses buildings on the same lot.

Section 507: This change provides clarification on how to measure the yards and public ways needed for buildings to qualify as unlimited area buildings. Each subsection of 507 except 507.8 requires the buildings to be surrounded and adjoined by yards and public ways but none speak to how to measure it. As 507 is about unlimited building area, it should be measured the same as the open spaces for determining area increases. This change is consistent with the commentary for these provisions published for the 2009 code. Because this applies throughout Section 507, the best place for the amendment is in 507.1 – General.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: TEPE-G1-506.2.1

G97–09/10
506.2.1

Proponent: Rick Thornberry, PE, The Code Consortium, Inc., representing self

Revise as follows:

506.2.1 Width limits. To apply this section the value of *W* shall be at least 20 feet (6096 mm). Where the value of *W* varies along the perimeter of the building, the calculation performed in accordance with Equation 5-2 shall be based on the weighted average of each portion of exterior wall and open space where the value of *W* is greater than or equal to 20 feet (6096 mm). Where the value of *W* exceeds 30 feet (9144 mm), a value of 30 feet (9144 mm) shall be used in calculating the weighted average, regardless of the actual width of the open space. Where two or more buildings are on the same lot, *W* shall be measured from the exterior face of ~~a~~ each building to the opposing exterior face of ~~an opposing~~ each adjacent building, as applicable.

> **Exception:** ~~The value of *W* divided by 30 shall be permitted to be a maximum of 2 when~~ Where the building meets ~~all~~ the requirements of Section 507, as applicable, except for compliance with the 60-foot (18 288 mm) public way or yard requirement, and the value of *W* exceeds 30 feet (9144 mm), the value of *W* divided by 30 shall be limited to a maximum of 2~~, as applicable~~.

Reason: The purpose of this code change proposal is to clarify the Exception to the maximum allowable area increase that can be achieved to the allowable area in Table 503 with open space provided around a building. The intent of the Exception is to recognize the special requirements in Section 507 for unlimited area buildings by giving credit for the open space around such buildings where the open space is not sufficient to meet the minimum 60 ft separation specified to qualify as an unlimited area building but where the open space is greater than the 30 ft maximum allowed for the calculation of the frontage area increase under Section 506.2. We have seen the Exception interpreted to allow the value of W divided by 30 to be 2 even though W may be less than 60. Also, it has not been clear what is intended by this Exception regarding the application of the other provisions of Section 507 when those buildings do not qualify as unlimited area buildings.

We believe that this proposed editorial revision will improve the application of the Exception by clearly indicating that the value of W divided by 30 is allowed to exceed 1 for the purpose of this Exception but cannot exceed 2, with the actual value being the value of W divided by 30. So in other words, if 45 ft of open space is provided around the entire building perimeter, the value of W divided by 30 would be 1.5. This is 50% more than the maximum that would otherwise be allowed for buildings utilizing the open space frontage increase provisions. This should result in better interpretation, application, and enforcement of the frontage increase provisions of the IBC for determining the allowable area of a building based on Table 503.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THORNBERRY-G2-506.2.1

G98–09/10
506.2.1

Proponent: Homer Maiel, PE, CBO, City of San Jose**,** representing ICC Tri-Chapter (Peninsula, East Bay, Monterey Bay)

Revise as follows:

506.2.1 Width limits. The value of W shall be at least 20 feet (6096 mm). Where the value of W varies along the perimeter of the building, the calculation performed in accordance with Equation 5-2 shall be based on the weighted average calculated in accordance with Equation 5-3 for portions of the exterior perimeter walls ~~of each portion of exterior wall and open space~~ where the value of W is greater than or equal to 20 feet (6096 mm). Where the value of W exceeds 30 feet (9144 mm), a value of 30 feet (9144 mm) shall be used in calculating the weighted average, regardless of the actual width of the open space. Where two or more buildings are on the same lot, W shall be measured from the exterior face of a building to the exterior face of an opposing building, as applicable.

> **Exception:** The value of *W* divided by 30 shall be permitted to be a maximum of 2 when the building meets all requirements of Section 507 except for compliance with the 60-foot (18 288 mm) *public way* or *yard* requirement, as applicable.

Weighted average $W = (L_1 \times w_1 + L_2 \times w_2 + L_3 \times w_3 \ldots)/F.$ **(Equation 5-3)**

Where:

L_n = Length of a portion of the exterior perimeter wall,
w_n = Width of open space associated with that portion of the exterior perimeter wall.
F = Building perimeter that fronts on a public way or open space having 20 feet (6096 mm) minimum width.

Reason: The term "weighted average" is not defined in the code. Although common to engineers, to many others, (who need to use this section) it is not a term they are familiar with. This is essentially an editorial change.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MAIEL-G3-506.2.1

G99–09/10
506.3

Proponent: Sam Francis, American Forest & Paper Association

Revise as follows:

506.3 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, in addition to the height and story increases in accordance with Section 504.2, the building area limitation in Table 503 is permitted to be increased by the amounts specified in either Item 1 or Item 2 as follows: ~~the building area limitation in Table 503 is permitted to be increased by an additional 200 percent (I_s = 2) for buildings with more than one story above grade plane and an additional 300 percent (I_s = 3) for buildings with no more than one story above grade plane. These increases are permitted in addition to the height and story increases in accordance with Section 504.2,~~

1. An additional 200 percent (I_s = 2) for buildings with more than one story above grade plane and an additional 300 percent (I_s = 3) for buildings with no more than one story above grade plane.
2. An additional 100 percent (I_s = 1) for buildings up to four stories above grade plane when the automatic sprinkler system is omitted from the unoccupied attic space and the roof is sheathed with fire retardant treated wood structural panels,

Exception: ~~The~~ Building area limitation increases shall not be permitted for the following conditions:

1. The automatic sprinkler system increase shall not apply to buildings with an occupancy in Group H-1.
2. The automatic sprinkler system increase shall not apply to the building area of an occupancy in Group H-2 or H-3. For buildings containing such occupancies, the allowable building area shall be determined in accordance with Section 508.4.2, with the sprinkler system increase applicable only to the portions of the building not classified as Group H-2 or H-3.
3. Fire-resistance rating substitution in accordance with Table 601, Note d.

Reason: AF&PA commissioned testing of three roof attic assembly configurations[1]:

1) FRT wood trusses and FRT wood sheathing
2) Untreated wood trusses and untreated wood sheathing
3) Untreated wood trusses and FRT wood sheathing.

These tests were conducted to the same ad-hoc test protocol[2] used to modify sprinkler head spacing and water pressure requirements in NFPA 13.

AF&PA tests demonstrated that the fire performance of a roof assembly constructed with fire retardant treated (FRT) wood trusses and FRT wood sheathing (Configuration 1) resulted in no fire growth which is better performing than a roof assembly protected with a NFPA 13 sprinkler system. This configuration is exempt from attic sprinkler systems in NFPA 13.

Configuration 2, a roof assembly constructed with untreated wood trusses and untreated wood sheathing, had sustained fire growth when using the ad-hoc test protocol.

Configuration 3, a roof assembly constructed with untreated wood trusses and FRT wood sheathing, had similar results to Configuration 1 affording better protection than the NFPA 13 attic sprinkler system. This code change proposal recognizes the improved fire performance demonstrated by this configuration. The area limitation in Table 503 for buildings using this configuration and otherwise sprinklered throughout in accordance with NFPA 13 are permitted to be increased 100%.

1. "Flammability of Full Scale Roof Attic Assemblies by Ignition with 6 lb and 35 lb Wood Crib and Measurement of Heat Release," Omega Point Maboratories, Project 15475-117047, November 2004.
2. "Spray Sprinklers Installed in Sloped Combustible Concealed Spaces," Underwriters Laboratories Inc., Project 01NK32756, EX5985, September 2001

Cost Impact: The code change proposal will not increase the cost of construction. Will reduce cost of construction by approximately $3/sq.ft. of roof area.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME:FRANCIS-G1-506 3.doc

G100–09/10
506.4.1, 506.5.2

Proponent: Dennis Richardson PE, dbr Group Inc., representing self

Revise as follows:

506.4 Single occupancy buildings with more than one story. The total allowable *building area* of a single occupancy building with more than one *story above grade plane* shall be determined in accordance with this section. The actual aggregate *building area* at all *stories* in the building shall not exceed the total allowable *building area*.

> **Exception:** A single basement need not be included in the total allowable *building area*, provided such basement does not exceed the area permitted for a building with no more than one *story above grade plane*.

506.4.1 Area determination. The total allowable *building area* of a single occupancy building with more than one *story above grade plane* shall be determined by multiplying the allowable *building area* per *story* (*Aa*), as determined in Section 506.1, by the number of *stories above grade plane* as listed below:

1. For buildings with two *stories above grade plane*, multiply by 2;
2. For buildings with three or more *stories above grade plane*, multiply by 3; and
3. No *story* shall exceed the allowable *building area* per *story* (A_a), as determined in Section 506.1, for the occupancies on that *story*.

Exceptions:

1. Unlimited area buildings in accordance with Section 507.
2. The maximum area of a building equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.2 shall be determined by multiplying the allowable area per *story (Aa),* as determined in Section 506.1, by the number of *stories above grade plane*.
3. The first story of a single occupancy building with more than one *story above grade plane* shall not exceed the allowable *building area* permitted for a building of the same occupancy with one *story above grade plane* when all of the following criteria are met:
   - 3.1. The allowable area (A_a) of the first *story above grade plane* shall be determined individually based on the provisions in Section 506.1 for a building with no more than one *story above grade plane*.
   - 3.2. Each additional *story* shall not exceed the allowable *building area* per *story* (A_a), as determined in Section 506.1 for the occupancies on that *story*.
   - 3.3. The total allowable *building area* shall comply with Items 1 or 2 of Section 506.4.1 computed based on a building with more than one story above grade plane.

506.5 Mixed occupancy area determination. The total allowable *building area* for buildings containing mixed occupancies shall be determined in accordance with the applicable provisions of this section. A single basement need not be included in the total allowable *building area*, provided such basement does not exceed the area permitted for a building with no more than one *story above grade plane*.

506.5.1 No more than one story above grade plane. For buildings with no more than one *story above grade plane* and containing mixed occupancies, the total *building area* shall be determined in accordance with the applicable provisions of Section 508.1.

506.5.2 More than one story above grade plane. For buildings with more than one *story above grade plane* and containing mixed occupancies, each *story* shall individually comply with the applicable requirements of Section 508.1. For buildings with more than three *stories above grade plane*, the total *building area* shall be such that the aggregate

sum of the ratios of the actual area of each *story* divided by the allowable area of such *stories* based on the applicable provisions of Section 508.1 shall not exceed 3.

Exception: The first story of a multi-story building shall not exceed the area permitted for a building with no more than one story above grade plane when all of the following criteria are met:

1. The allowable area of the first story above grade plane shall be determined individually in accordance with the applicable total building area provisions of Section 508.1 and comply with the building area provisions for a building with no more than one story above grade plane.
2. Each additional story shall individually comply with the applicable requirements of Section 508.1.
3. For buildings with two stories above grade plane, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such story, computed based on a building with more than one story above grade plane, based on the applicable provisions of Section 508.1, shall not exceed 2.
4. For buildings with three or more stories above grade plane, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such story, computed based on a building with more than one story above grade plane, based on the applicable provisions of Section 508.1, shall not exceed 3.

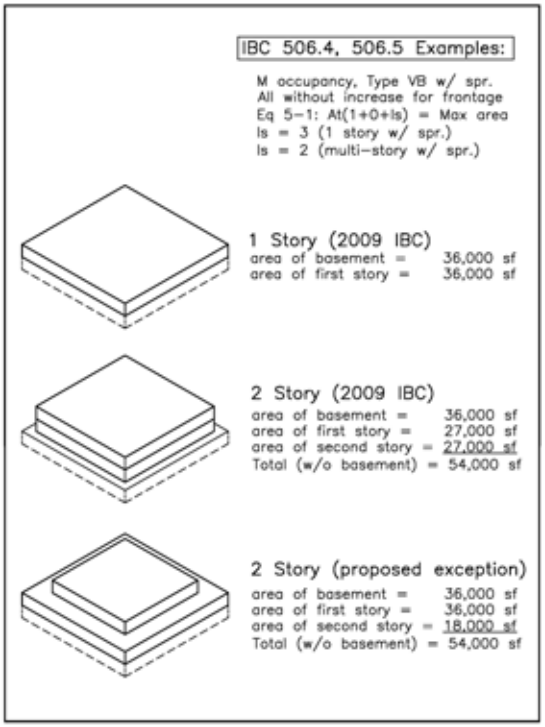
Reason: The proposed change would provide an exception allowing the first floor of a multi story building to be as large as a single story building which could be constructed on the same site as long as the total building area does not exceed the applicable code maximum allowable floor area.

Currently, based on Equation 5-1 and Section 506.3, a one story building with fire sprinklers throughout is permitted to be 4 times the Table 503 tabular area before considering any available area increase for frontage. However the first story of a multi-story building is limited to three times the tabular building area without consideration of any increase for frontage, even if the upper story levels are less than the maximum permitted area. The step function in the value of I_S between a one story building and all multistory buildings effectively limits the first story of multi-story buildings to 75% of the area allowed on that level for a one story building. This is true regardless of how small the second story is.

The current Section 506.4.1, item 3 indicates: No *story* shall exceed the allowable *building area* per *story* (Aa), as determined in Section 506.1 for occupancies on that *story*. This provision of the code encourages the construction of buildings that are box like in order to maximize building area with similar sized floors instead of allowing the flexibility for the designer to step back the upper floors giving the building the appearance of less mass and allowing more light to the street.

The exception to Section 506.4 and the last sentence in Section 506.5 each allow a single basement not to be included in the area calculation so long as the "basement area does not exceed the area permitted for a building with no more than one story above grade plane." Since a building with no more than one story above grade plane can be larger than the first floor of a similar multi-story building, this exception has the effect of allowing the basement to be larger in area than the area of first floor above it on a multi-story building.

The proposed code change is formatted as an exception so that it clear it does not change the existing code provisions unless utilized. When it is utilized it is intended to merely allow the first floor to be as large as it would otherwise be as a single story building without creating an increase in the total floor area of the entire building. As such the area of upper floors may have to be decreased from the maximum area that would otherwise be allowed so the total floor area is less than or equal to the total allowable building area. See attached example for a Group M occupancy, Type VB construction building. Similar examples would occur with other occupancies.



Cost Impact: The code change proposal will not increase the cost of construction. Because this exception does not have to be utilized by the designer and since it has the effect of allowing more construction to occur at grade where it is less expensive this proposed change would have the effect of decreasing construction cost if utilized by the designer.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RICHARDSON-G1-506.4.1 AND 506.5.2

G101–09/10
507.1.1 (New)

Proponent: Sarah A. Rice, CBO, representing herself

Add new text as follows:

507.1.1 Accessory occupancies. Occupancies not specifically listed in Section 507 shall be allowed to be located in unlimited area buildings provided the occupancy complies with Section 508.2 for an accessory occupancy.

Reason: The current text of Section 507 has been interpreted that unless an occupancy is specifically listed in that section it cannot be located within an unlimited area building. Unlimited area buildings are subject to the same guidelines as other buildings when it comes to 'accessory occupancies'. If the occupancy is one that is allowed and the area it occupies meets the size limitations of 508.2 they are allowed to be in an unlimited area building. The proposed language makes clear that occupancies which are not specifically listed in Section 507 are not prohibited from being in an unlimited area building as long as they meet the accessory occupancy provisions (including the 10% area limit in Section 508.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: RICE-G10-507.1.1.doc

G102–09/10
507.3

Proponent: Dallas Dixon representing BRR Architecture INC.

Revise as follows:

507.3 Sprinklered, one story. The area of a Group B, F, M or S building no more than one story above grade plane of any construction type, or the area of a Group A-4 building no more than one story above grade plane of other than Type V construction, shall not be limited when the building is provided with an automatic sprinkler system throughout in accordance with Section 903.3.1.1 and is surrounded and adjoined by public ways or yards not less than 60 feet (I8 288 mm) in width.

Exceptions: (No change to current text)

Reason: The intent of this proposal is to provide clarity of which occupancy classifications design professionals are allowed to design as unlimited area buildings while choosing any construction type and to clarify which occupancy classification is restricted to construction types 1 through 4.

On many occasion design professionals come across jurisdictions that interpreted section 507.3 to disallow Type 5 construction for all occupancies listed. Many deny that unlimited area is applicable to Type 5 construction when they read the existing text. The code commentary clearly explains that only Group A-4 is restricted. All remaining listed occupancy classifications are permitted to qualify for unlimited area when the building is fully sprinkled and surrounded by 60 feet of open yard on all sides. The addition of the text "of any construction type" and "the area of" will provide greater clarity to the intention and understanding of the code section.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: DIXON-G1-507.3

G103–09/10
507.3

Proponent: Tom Lariviere, Chairman, representing Joint Fire Service Review Committee

Revise as follows:

507.3 Sprinklered, one story. The area of a Group B, F, M or S building no more than one *story above grade plane*, or a Group A-4 building no more than one *story above grade plane* of other than Type V construction, shall not be limited when the building is provided with an *automatic sprinkler system* throughout in accordance with Section 903.3.1.1 and is surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width.

Exceptions~~s~~:

~~1.~~ Buildings and structures of Type I and II construction for rack storage facilities that do not have access by the public shall not be limited in height, provided that such buildings conform to the requirements of Sections 507.3 and 903.3.1.1 and Chapter 23 of the *International Fire Code*.

~~2. The *automatic sprinkler system* shall not be required in areas occupied for indoor participant sports, such as tennis, skating, swimming and equestrian activities in occupancies in Group A-4, provided that:~~

~~2.1. *Exit* doors directly to the outside are provided for occupants of the participant sports areas; and~~

~~2.2. The building is equipped with a *fire alarm system* with *manual fire alarm boxes* installed in accordance with Section 907.~~

Reason: Code change F132-07/08 deleted the exception which allowed the elimination of a fire sprinkler system over participant sport areas in Group A-4 occupancies (See Section 903.2.1.4). However, when that code change was approved, a corresponding section in the IBC was overlooked. IBC 507.3 contains a similar exception to the item that was deleted in Chapter 9. Therefore, Exception 2 is proposed for deletion to be consistent with the action take last cycle in F132-07/08.

Section 507.3 allows for unlimited area buildings. Exception 2 would allow for an unlimited area Group A-4 occupancy and yet not require sprinklers over a major portion of the building.

The intention of the exception was for gymnasiums and similar areas where the probable occupant load was significantly less than what would be determined based on a square footage per occupant factor. However, these facilities have become multi-use and the occupant load is frequently higher than what was anticipated or expected when the exception was developed, and the fire load can vary based on the used to far exceed what would be expected for a sporting area.

For example, a community recreation center is constructed with no sprinklers over the gymnasium floor. The same area is also utilized for receptions and various community activities such as work fairs, rummage sale, art exhibits, emergency shelters for persons displaced by natural disasters, etc. Such uses could even include eating, sleeping, and fire loads far in excess of a few uniforms and leather volleyballs.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: LARIVIERE-G3-507.3

G104–09/10
507.8

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company

Revise as follows:

507.8 Group H occupancies. Group H-2, H-3 and H-4 occupancies shall be permitted in unlimited areas buildings containing Group F and S occupancies~~,~~ in accordance with Sections 507.3 and 507.4 and the provisions ~~limitations~~ of ~~this section~~ Sections 507.8.1 through 507.8.3.

507.8.1 Allowable area. The aggregate floor area of ~~the~~ Group H occupancies located ~~at the perimeter of the~~ in an unlimited area building shall not exceed 10 percent of the area of the building nor the area limitations for the Group H occupancies as specified in Table 503 as modified by Section 506.2.

507.8.1.1 Located on building perimeter. Except as provided for in Section 507.8.1.2, Group H occupancies shall be located on the perimeter of the building. ~~,based upon the percentage of the perimeter of each Group H floor area that fronts~~ In Group H-2 and H-3 occupancies, not less than 25 percent of the perimeter of such occupancies shall front on a public way or open ~~street or other unoccupied~~ space.

507.8.1.2 Located within the building. The aggregate floor area of Group H occupancies not located at the perimeter of the building shall not exceed 25 percent of the area limitations for the Group H occupancies as specified in Table 503.

507.8.1.2.1 Liquid use, dispensing and mixing rooms. Liquid use, dispensing and mixing rooms having a floor area of not more than 500 square feet (46.5m^2) need not be located on the outer perimeter of the building where they are in accordance with the International Fire Code and NFPA 30.

507.8.1.2.2 Liquid storage rooms. Liquid storage rooms having a floor area of not more than 1,000 square feet (93 m^2) need not be located on the outer perimeter where they are in accordance with the *International Fire Code* and NFPA 30.

507.8.1.2.3 Spray paint booths. Spray paint booths that comply with the *International Fire Code* need not be located on the outer perimeter.

507.8.2 Occupancy separations. Group H occupancies shall be separated from the remainder ~~rest~~ of the unlimited area building and from each other in accordance with Table 508.4.

507.8.3 Height limitations. For two-story unlimited area buildings, ~~the~~ Group H occupancies shall not be located more than one story above grade plane unless permitted based on ~~by~~ the allowable height in stories and feet as set forth in Table 503 for ~~based on~~ the type of construction of the unlimited area building.

Reason: This proposal is intended to clarify the provisions governing the placement of Group H occupancies in certain unlimited area buildings. Currently, all requirements are placed within a single run-on paragraph that does not separate thoughts or provisions. In its present format, it is easy to attempt to overlay requirements that are intended to address different design conditions. Additionally, Section 507.8 contains a very vague provision in that it states that Group H occupancies shall be located on the perimeter of the building based upon the "percentage of the perimeter" of each Group H floor area. No percentage figure is provided. Presumably, that is an indirect reference to Section 415.3. For purposes of continuity, Section 415.3 requirements have been incorporated into Section 507.8, including allowances for certain interior spaces. The format and clarity provided in this proposal will assist code users in the proper identification of requirements in this fairly rare, but very important provision.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KEITH-G3-507.8.doc

G105–09/10
507.10

Proponent: Joe Holland and Dave Bueche, Hoover Treated Wood Products

Revise as follows:

507.10 Group E buildings. The area of a Group E building no more than one *story above grade plane*, of Type II, ~~IIIA~~ III or IV construction, shall not be limited when all of the following criteria are met:

1. Each classroom shall have not less than two *means of egress*, with one of the *means of egress* being a direct *exit* to the outside of the building complying with Section 1020.
2. The building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
3. The building is surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width.

Reason: The exterior wall fire resistance required in Table 601 is greater for Type III than what is required for Type II and is equal to what is required for Type IV. The interior fire resistance in Type III construction is equivalent to Type II and therefore should be allowed. In addition, in Table 503 for E occupancies, the code recognizes that Type IIB and IIIB are equivalent in overall height, number of stories, and allowable area.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOLLAND-BUECHE-G2-507.10

G106–09/10
507.11

Proponent: Joe Holland and Dave Bueche, Hoover Treated Wood Products

Revise as follows:

507.11 Motion picture theaters. In buildings of Type II or III construction, the area of a motion picture theater located on the first *story above grade plane* shall not be limited when the building is provided with an *automatic sprinkler system* throughout in accordance with Section 903.3.1.1 and is surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width.

Reason: This change recognizes that Type III offers equivalent or superior fire resistance to Type II construction. The exterior wall fire resistance required in Table 601 is greater for Type III than what is required for Type II (2 hours versus 1 hour or none). The interior fire resistance in Type III construction is equivalent to Type II. In Table 503 for Group A-1 occupancies, the code recognizes that Type IIB and IIIB are equivalent in overall height, number of stories, and allowable area.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOLLAND-BUECHE-G3-507.11

G107–09/10
508, 509 (New)

Proponent: Maureen Traxler, City of Seattle, WA, Seattle Dept of Planning & Development

Revise as follows:

SECTION 508
MIXED USE AND OCCUPANCY

508.1 General. Each portion of a building shall be individually classified in accordance with Section 302.1. Where a building contains more than one occupancy group, the building or portion thereof shall comply with the applicable provisions of Section 508.2, 508.3 or 508.4, or a combination of these sections.

Exceptions:

1. Occupancies separated in accordance with Section ~~509~~ 510.
2. Where required by Table 415.3.2, areas of Group H-1, H-2 and H-3 occupancies shall be located in a separate and detached building or structure.
3. Uses within live/work units, complying with Section 419, are not considered separate occupancies.

508.2 Accessory occupancies. Accessory occupancies are those occupancies that are ancillary to the main occupancy of the building or portion thereof. Accessory occupancies shall comply with the provisions of Sections 508.2.1 through 508.2.4 ~~508.2.5.3~~.

508.2.1 Area limitations. Aggregate accessory occupancies shall not occupy more than 10 percent of the *building area* of the *story* in which they are located and shall not exceed the tabular values in Table 503, without *building area* increases in accordance with Section 506 for such accessory occupancies.

508.2.2 Occupancy classification. Accessory occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space.

508.2.3 Allowable building area and height. The allowable *building area and height* of the building shall be based on the allowable *building area and height* for the main occupancy in accordance with Section 503.1. The height of each accessory occupancy shall not exceed the tabular values in Table 503, without increases in accordance with Section 504 for such accessory occupancies. The *building area* of the accessory occupancies shall be in accordance with Section 508.2.1.

508.2.4 Separation of occupancies. No separation is required between accessory occupancies and the main occupancy.

Exceptions:

1. Group H-2, H-3, H-4 and H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.4.
2. Incidental ~~accessory occupancies~~ uses required to be separated or protected by Section ~~508.2.5~~ 509.
3. Group I-1, R-1, R-2 and R-3 *dwelling units* and *sleeping units* shall be separated from other *dwelling* or *sleeping units* and from accessory occupancies contiguous to them in accordance with the requirements of Section 420.

(Relocate Section 508.2.5 through 508.2.5.3 to new Section 509)

508.3 Nonseparated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as nonseparated occupancies.

508.3.1 Occupancy classification. Nonseparated occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space except that the most restrictive applicable provisions of Section 403 and Chapter 9 shall apply to the building or portion thereof in which the nonseparated occupancies are located.

508.3.2 Allowable building area and height. The allowable *building area and height* of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.

508.3.3 Separation. No separation is required between nonseparated occupancies.

Exceptions:

1. Group H-2, H-3, H-4 and H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.4.
2. Group I-1, R-1, R-2 and R-3 *dwelling units* and *sleeping units* shall be separated from other *dwelling* or *sleeping units* and from other occupancies contiguous to them in accordance with the requirements of Section 420.

508.4 Separated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as separated occupancies.

508.4.1 Occupancy classification. Separated occupancies shall be individually classified in accordance with Section 302.1. Each separated space shall comply with this code based on the occupancy classification of that portion of the building.

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

(No change to table contents)

508.4.2 Allowable building area. In each *story*, the *building area* shall be such that the sum of the ratios of the actual *building area* of each separated occupancy divided by the allowable *building area* of each separated occupancy shall not exceed 1.

508.4.3 Allowable height. Each separated occupancy shall comply with the *building height* limitations based on the type of construction of the building in accordance with Section 503.1.

Exception: Special provisions permitted by Section ~~509~~ 510.

508.4.4 Separation. Individual occupancies shall be separated from adjacent occupancies in accordance with Table 508.4.

508.4.4.1 Construction. Required separations shall be fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both, so as to completely separate adjacent occupancies.

SECTION 509
INCIDENTAL USES

~~508.2.5~~ 509.1 Separation of incidental uses ~~accessory occupancies~~. The incidental uses ~~accessory occupancies~~ listed in Table ~~508.2.5~~ 509.1 shall be separated from the remainder of the building or equipped with an automatic fire-extinguishing system, or both, in accordance with Table ~~508.2.5~~ 509.1.

> **Exception:** Incidental uses ~~accessory occupancies~~ within and serving a *dwelling unit* are not required to comply with this section.

~~508.2.5.1~~ 509.2 Fire-resistance-rated separation. Where Table ~~508.2.5~~ 509.1 specifies a fire-resistance-rated separation, the incidental uses ~~accessory occupancies~~ shall be separated from the remainder of the *building* by a *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 712, or both. Construction supporting 1-hour fire-resistance-rated *fire barriers* or *horizontal assemblies* used for incidental use ~~accessory occupancy~~ separations in buildings of Type IIB, IIIB and VB construction are not required to be fire-resistance rated unless required by other sections of this code.

TABLE ~~508.2.5~~ 509.1
INCIDENTAL ~~ACCESSORY OCCUPANCIES~~ USES

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Hydrogen cutoff rooms, not classified as Group H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic fire-extinguishing system
Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy	1 hour or provide automatic fire-extinguishing system
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Group I-3 cells equipped with padded surfaces	1 hour
Group I-2 waste and linen collection rooms	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.
Rooms containing fire pumps in nonhigh-rise buildings	2 hours; or 1 hour and provide automatic sprinkler system throughout the building
Rooms containing fire pumps in high-rise buildings	2 hours

For SI: 1 square foot = 0.0929 m2, 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L.

~~508.2.5.2~~ 509.2.1 Nonfire-resistance-rate separation and protection. Where Table ~~508.2.5~~ 509.1 permits an automatic fire-extinguishing system without a *fire barrier*, the incidental uses ~~accessory occupancies~~ shall be separated from the remainder of the building by construction capable of resisting the passage of smoke. The walls shall extend from the top of the foundation or floor assembly below to the underside of the ceiling that is a component of a fire-resistance-rated floor assembly or roof assembly above or to the underside of the floor or roof sheathing, deck

or slab above. Doors shall be self- or automatic closing upon detection of smoke in accordance with Section 715.4.8.3. Doors shall not have air transfer openings and shall not be undercut in excess of the clearance permitted in accordance with NFPA 80. Walls surrounding the incidental use shall not have air transfer openings unless provided with smoke dampers in accordance with Section 711.7.

~~508.2.5.3~~ 509.2.2 Protection. Except as specified in Table ~~508.2.5~~ 509.1 for certain incidental uses ~~accessory occupancies~~, where an automatic fire-extinguishing system or an *automatic sprinkler system* is provided in accordance with Table ~~508.2.5~~ 509.1, only the space occupied by the incidental use ~~accessory occupancy~~ need be equipped with such a system.

(Renumber subsequent sections)

Reason: A change occurred in the 2009 IBC that we believe has unintended consequences. As written, "incidental accessory occupancies" are only required to be separated when they are part of an accessory occupancy. They are mentioned only in Section 508.2.5, and, since it is a subsection of Section 508.2, it only applies where 508.2 applies.

This proposal creates a separate section so that the incidental use provisions will apply in all buildings, including single use buildings. The rooms and areas listed in the incidental use table present special hazards that require special protection. They should be separated from other occupancies and uses regardless of whether the other occupancies in the building are treated as separated or nonseparated occupancies.

We are also proposing to change the term to "incidental uses" instead of "incidental accessory occupancies". Many of the items listed in the table are not occupancies in themselves—they are special uses that don't fall neatly into any occupancy category. The use of this term should be changed throughout the code if this code change proposal is approved.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: TRAXLER-G5-508.DOC

G108–09/10
508.1

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company

Revise as follows:

508.1 General. Each portion of a building shall be individually classified in accordance with Section 302.1. Where a building contains more than one occupancy group, the building or portion thereof shall comply with the applicable provisions of Section 508.2, 508.3 or 508.4, or a combination of these sections. Under all circumstances, where a building contains a use listed in Table 508.2.5, the applicable provisions of Section 508.2.5 shall apply.

Exceptions:

1. Occupancies separated in accordance with Section 509.
2. Where required by Table 415.3.2, areas of Group H-1, H-2 and H-3 occupancies shall be located in a separate and detached building or structure.
3. Uses within live/work units, complying with Section 419, are not considered separate occupancies.

Reason: This proposal is intended to clarify that incidental accessory occupancy provisions apply to all building occupancy configurations. Section 508.1 currently states, "…the building or portion thereof shall comply with the applicable provisions of Section 508.2, 508.3 or 508.4, or a combination of these sections." Although Section 508.2.5 states, "The incidental accessory occupancies listed in Table 508.2.5 shall be separated from the remainder of the building or equipped with an automatic fire-extinguishing system, or both, in accordance with Table 508.2.5," there is a concern that all code practitioners may not make the legislative tie between Section 508.1 and Section 508.2.5. The added provision makes it very clear that incidental occupancy requirements apply regardless of the building occupancy condition. Approval of this proposal will result in more consistent application of IBC occupancy provisions.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KEITH-G4-508.1.doc

G109–09/10
508.2, 508.2.1, 508.2.2, 508.2.3, 508.2.4

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company

Revise as follows:

508.2 Accessory occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as accessory occupancies. Accessory occupancies are those occupancies that are ancillary to the main occupancy of the building or portion thereof. Accessory occupancies shall comply with the provisions of Section 508.2.1 through ~~508.2.5.3~~ 508.2.4.3.

~~**508.2.1 Area limitations.** Aggregate accessory occupancies shall not occupy more than 10 percent of the area of the story in which they are located and shall not exceed the tabular values in Table 503, without area increases in accordance with Section 506 for such accessory occupancies.~~

~~**508.2.2**~~ **508.2.1 Occupancy classification.** Accessory occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space.

~~**508.2.3**~~ **508.2.2 Allowable area and height.** The allowable area and height of the building shall be based on the allowable area and height for the main occupancy in accordance with Section 503.1. Aggregate accessory occupancies shall not occupy more than 10 percent of the area of the story in which they are located and shall not exceed the tabular values in Table 503, without area increases in accordance with Section 506 for such accessory occupancies. The height of each accessory occupancy shall not exceed the tabular values in Table 503, without increases in accordance with Section 504 for such accessory occupancies. ~~The area of the accessory occupancies shall be in accordance with Section 508.2.1~~

~~**508.2.4**~~ **508.2.3 Separation of occupancies.** No separation is required between accessory occupancies and the main occupancy or each other.

Exceptions:

1. Group H-2, H-3, H-4 and H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.4.
2. Incidental accessory occupancies required to be separated or protected by Section ~~508.2.5~~.508.2.4.
3. Group I-1, R-1, R-2 and R-3 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from accessory occupancies contiguous to them in accordance with the requirements of Section 420.

~~**508.2.5**~~ **508.2.4 Separation of incidental accessory occupancies.**

(The text of this and following sections are not changed, renumbering is shown for context of number changes in preceding sections.)

Table ~~508.2.5~~ 508.2.4 Incidental Accessory Occupancies
~~**508.2.5.1**~~ **508.2.4.1 Fire-resistance-rated separation.**
~~**508.2.5.2**~~ **508.2.4.2 Nonfire-resistance-rated separation and protection.**
~~**508.2.5.3**~~ **508.2.4.3 Protection**.

Reason: This proposal is intended to clarify accessory occupancy mixed occupancy provisions. Charging language has been added to Section 508.2 to duplicate that contained in Sections 508.3 and 508.4 for purposes of editorial and legal consistency. The area provisions in current Section 508.2.1 have been placed in context in proposed Section 508.2.2, "Allowable area and height." Having accessory occupancy allowable area provisions in two different sections could result in oversight. Proposed Section 508.2.3 clarifies that no occupancy separation is required between adjacent accessory occupancies, the exceptions notwithstanding. Approval of this proposal will result in more consistent application of IBC accessory occupancy provisions.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KEITH-G5-508.2.doc

G110–09/10
508.2.1

Proponent: Lee J. Kranz, CBO, City of Bellevue, representing Washington Association of Building Officials Technical Code Development Committee.

Revise as follows:

508.2.1 Area limitations. Aggregate accessory occupancies shall not occupy more than 10 percent of the building area of the story in which they are located and shall not exceed the tabular values in Table 503, without building area increases in accordance with Section 506 for such accessory occupancies. <u>In multi-tenant buildings, aggregate accessory occupancies within each tenant space shall be limited to 10 percent of the area of each story of the tenant space.</u>

Reason: In multi-tenant buildings, it is not reasonable to penalize one tenant because another tenant has exceeded 10% of their tenant space with an accessory use. The code currently allows a single tenant to exceed 10% of their space with an accessory use as long as the aggregate areas stay within the 10% limit. It is also impractical for many large multi-tenant commercial buildings to provide an up-to-date ratio inventory of accessory spaces in order to obtain a tenant improvement permit. The accessory occupancy limit should be on a tenant-by-tenant basis in multi-tenant buildings.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KRANZ-GI-508.2.1.DOC

G111–09/10
508.2.3

Proponent: Todd Andersen, representing self

Revise as follows:

508.2.3. Allowable building area and height.. The allowable building area and height of the building <u>containing accessory occupancies</u> shall be based on the allowable building area and height for the main occupancy in accordance with Section 503.1. ~~The height of any accessory occupancy shall not exceed the tabular values in Table 503, without height and area increases in accordance with Sections 504 and 506 for such accessory occupancies. The building area of the accessory occupancies shall be in accordance with Section 508.2.1.~~

Reason: The current text would limit the location of an accessory occupancy within a building such that it could not be located any higher in a building than the building area and height limits of Table 503 for the accessory would allow. From the Reason statement and testimony by the proponent this was never the intent. Code Change G14-04/05 relocated and rewrote the provisions for Mixed Occupancies in the 2006 IBC to move from Section 302 to new Section 508.

In the Reason statement the proponent wrote – "The purpose of this proposal is to organize and clarify the requirements for the various mixed occupancy and use design options recognized in the International Building Code…The various technical requirements for each design option have been articulated using consistent terminology and style. These requirements generally parallel current intent."

As stated in the Reason statement to Code Change G14-04/05, the intent of code change was to relocate the provisions in Section 302.2 of the 2003 IBC and put their requirements in a consistent format, not to make technical changes. Therefore to understand that the current language was never part of the requirements we need to look at the language in Section 302.2 of the 2003 IBC – it reads:

> **302.2 Accessory use areas.** A fire barrier shall be required to separate accessory use areas classified as Group H in accordance with Section 302.3.1, and incidental use areas in accordance with Section 302.1.1. Any other accessory use area shall not be required to be separated by a fire barrier provided the accessory use area occupies an area not more than 10 percent of the area of the story in which it is located and does not exceed the tabular values in Table 503 for the allowable height or area for such use.
> **302.2.1 Assembly areas.** Accessory assembly areas are not considered separate occupancies if the floor area is equal to or less than 750 square feet (69.7 m2). Assembly areas that are accessory to Group E are not considered separate occupancies. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 are not considered separate occupancies.

Nowhere in Section 302.2 (2006 IBC) was there ever a limit on the location of an accessory use area within a building, and it was not the intent of the proponents of Code Change G14-04/05 to ever impose one in the 2006 IBC nor to carry over to the 2009 IBC.

Without this code change building design as we know it today would literally not be allowed.

Without this code change a conference room would never be allowed to be located on the top story in a office building (Group B) of Type IIA construction because the building height limit (in stories) for a Group A-3 occupancies is 3 stories, where the Group B building would be allowed to be 5 stories in building height (or 6 stories if sprinklered). The current language would limit the location of any conference room to not more than the 3rd story.

Another example would be storage rooms (Group S-1). Based on Table 503 the building height limit (in stories) for a Group S-1 occupancy is 4 stories, again where the Group B building would be allowed to be 5 stories in building height (or 6 stories if sprinklered). The current language would limit the location of any store rooms to not more than the 4th story.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ANDERSEN G-1(FORMER RICE-G9)-508.2.3.DOC

G112–09/10
508.2.5, Table 508.2.5

Proponent: David S. Collins, FAIA, The Preview Group, Inc., representing The American Institute of Architects

Revise as follows:

508.2.5 Separation of incidental accessory occupancies. The incidental accessory occupancies listed in Table 508.2.5 shall be separated from the remainder of the building or equipped with an automatic fire-extinguishing system or both, in accordance with Table 508.2.5.

Exceptions:

1. Incidental accessory occupancies within and serving a dwelling unit are not required to comply with this section.
2. In other than Group I-2 occupancies, where incidental accessory occupancies listed in Table 508.2.5.2 conform to the requirements of Sections 508.3 or 508.4, using the occupancy indicated in Table 508.2.5, Section 508.2.5 shall not apply.

Table 508.2.5
INCIDENTAL, ACCESSORY OCCUPANCIES

ROOM OR AREA	SEPARATION AND/OR PROTECTION	OCCUPANCY
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system.	F-1
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system.	F-2,
Refrigeration machinery room	1 hour or provide automatic fire-extinguishing system.	F-1
Hydrogen cutoff-rooms, not classified as H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.	NA
Incinerator rooms	2 hours and automatic sprinkler system	F-1
Paint shops, not classified as Group H, located in occupancies other than F	2 hours; or 1 hour and provide automatic fire-extinguishing system	F-1
Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy	1 hour or provide automatic fire-extinguishing system	B, where no gas is piped to, or stored in the laboratory room or space
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system	F-2
Group I-3 cells equipped with padded surfaces	1 hour	I-2
Group I-2 waste and linen collection rooms	1 hour or provide automatic fire-extinguishing system	NA
Waste and linen collection rooms over 100 square feet	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies.	S-1
Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A	NA
~~Rooms containing fire pumps in high-rise buildings~~	~~2 hours; or 1 hour and provide automatic sprinkler system throughout~~	
~~Rooms containing fire pumps in nonhigh-rise buildings~~	~~2 hours~~	

NA – Not applicable
For SI: 1 square foot = 0.0929 m2, 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L

Reason: Currently Section 508.1 allows the option to use "the applicable provisions of Section 508.2, 508.3 or 508.4, or a combination of these sections" when the occupancies are mixed. However, Section 508.2.5 does not designate what occupancy is anticipated when the listed occupancies are to be considered either separated or nonseparated mixed use and occupancy. This change indicates which occupancies these areas are to be considered a part of for such purposes.

"Incidental accessory" is not a defined term in the IBC. Several sections include the term incidental, and Section 508.2 describes what constitutes an accessory condition. Using the code's prescribed limits, larger areas for waste and linen collection could be built exceeding the 10% limit requiring that these occupancies be dealt with as mixed use separated or nonseparated. Without an occupancy designation the designer and the code official are unable to determine the means for compliance.

The criteria for rooms containing fire pumps is to be removed as this duplicates the criteria in Section 913 of the IBC and isn't an appropriate classification of an incidental accessory occupancy.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: COLLINS-G3-508.2.5.doc

G113–09/10
Table 508.2.5

Proponent: Paul K. Heilstedt, PE, Chair, representing ICC Code Technology Committee (CTC)

Revise table as follows:

TABLE 508.2.5
INCIDENTAL ACCESSORY OCCUPANCIES

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Group I-2 waste and linen collection rooms	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire extinguishing system
Ambulatory Care Facility Waste and linen collection rooms	1 hour

(Portions of table not shown remain unchanged)

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April/2005, the CTC has held seventeen meetings - all open to the public.

This proposed change is a result of the CTC's investigation of the area of study entitled "Care Facilities". The scope of the activity is noted as:

> Study issues associated with Day Care/Adult Care, Ambulatory Health Care and Assisted Living facilities with an emphasis on the number of occupants in relation to the supervision, and the determination of the resident's capability of responding to an emergency situation without physical assistance from the facility's supervision.

The Code Technology Committee Study Group on Care Facilities has conducted a comprehensive review of current building and fire codes, federal regulations and prior code change proposals dealing with the provision of "care". "Care" as it relates to the scope of this work relates to an occupant of a building who is compromised (mentally or physically) and receives some type of support (care). These facilities encompass a full spectrum of acuity and span a wide range of occupancy types including Groups B, E, I and R. On the lower end of the spectrum, occupants may be aged and receive occasional day living assistance such as cooking and cleaning. On the opposite end of the spectrum, occupants may be completely bedridden and dependant on medical gases and emergency power to maintain life.

The proposed changes provide clear direction for design and construction by using terms and concepts consistently and clearly identifying thresholds related to the condition of an occupant. Federal regulations and state licensing provisions were considered, but primarily in terms of avoiding conflicting requirements. It is not the intent of these changes to address licensing or operational issues. We do believe that the proposed changes will provide consistent and correlated language between these multiple sources of regulations that will help design and code professionals address the needs of care recipients in the many different types of facilities.

A major goal is to provide clarity and consistency of terminology. New definitions are added to specifically describe each type of care or facility and identify the distinct differences in these. Some terms are consolidated to be more descriptive of a group of occupants, yet generic enough to be used interchangeably. For example: a "Patient" is now identified as a "care recipient" and "nurse" is now "care provider". People receive care of varying types but they are not always referred to as "patients". They receive care from a wide range of persons with different technical abilities, not just a "nurse" or "staff". Other definitions address existing terms not defined within current code. The study group believes that these changes bring a practical response to the recent developments within the healthcare delivery system.

Ambulatory Care Facility - Waste and Linen Collection Room

The code currently requires waste and linen collection rooms in Group I-2 facilities to have a 1 hour separation. The Care Facilities committee proposals for Ambulatory Care Facilities are intended to make this type of facility consistent with a higher level of protection required when some occupants rely on staff for assisted evacuation, similar to nursing homes and hospitals; therefore, it is consistent to protect these types of rooms in a similar manner.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEILSTEDT-G9-TABLE 508.2.5.doc

G114–09/10
508.3.3

Proponent: Jody Hilton, Sunrise Engineering, Utah Chapter of International Code Council (ICC)

Revise as follows:

508.3 Nonseparated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as nonseparated occupancies.

508.3.1 Occupancy classification. Nonseparated occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space except that the most restrictive applicable provisions of Section 403 and Chapter 9 shall apply to the building or portion thereof in which the nonseparated occupancies are located.

508.3.2 Allowable building area and height. The allowable *building area and height* of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.

508.3.3 Separation. No separation is required between nonseparated occupancies.

Exceptions:

1. Group H-2, H-3, H-4 and H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.4.
2. Group I-1, R-1, R-2 and R-3 *dwelling units* and *sleeping units* shall be separated from other *dwelling* or *sleeping units* and from other occupancies contiguous to them in accordance with the requirements of Section 420.
3. <u>Group S-2 parking garages shall be separated from all other occupancies in accordance with footnote b of Table 508.4.</u>

Reason: When G163-07/08 was passed and included in the 2009 I.B.C to require a minimum of a one-hour separation from parking garages and all other uses it was intended that the minimal separation of one-hour fire-resistance rated construction apply in all cases. Since parking garages were deleted from the incidental use Table 508.2.5 which would have required a two-hour separation between a nonsprinkled six story B occupancy and an S-2 open parking garage uses which are side- by- side there needs to be some safeguard in the code to not allow this. Since the uses could be nonseparated they could be entirely open to each other allowing products of combustion to spread throughout the building as well as carbon monoxide and nitrogen dioxide emissions. Even though these uses are inherently separated it is still necessary to insure that there will always be a separation in all instances.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis. Would it be preferable to place the requirement in the body of the code rather than its current location in a footnote to a table? With a location within the code text, the footnote of the table would instead refer to a requirement in the code text.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HILTON-G1-508.3.3

G115–09/10
508.4

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company

Revise as follows:

508.4 ~~Separated~~ <u>Calculated</u> occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as ~~separated~~ <u>calculated</u> occupancies.

508.4.1 Occupancy classification. ~~Separated~~ <u>Calculated</u> occupancies shall be individually classified in accordance with Section 302.1. Each ~~separated~~ <u>individual</u> space shall comply with this code based on the occupancy classification of that portion of the building.

508.4.2 Allowable area. In each story, the building area shall be such that the sum of the ratios of the actual building area of each ~~separated~~ individual occupancy divided by the allowable area of each ~~separated~~ such occupancy shall not exceed one.

508.4.3 Allowable height. Each ~~separated~~ individual occupancy shall comply with the height limitations based on the type of construction of the building in accordance with Section 503.1.

Exception: Special provisions permitted by Section 509.

508.4.4 Separation. Individual occupancies shall be separated from adjacent occupancies in accordance with Table 508.4.

508.4.4.1 Construction. Required separations shall be fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both, so as to completely separate adjacent occupancies.

Reason: This proposal is intended to clarify separated occupancy mixed occupancy provisions. First, "separated" occupancy is a misnomer. This is due to the fact that Table 508.4 does not necessarily require an occupancy separation based on similar risk of the occupancies under consideration. Section 508.4.2, however, always requires the performance of the sum of the ratios calculation. Given that this calculation is a common denominator of all Section 508.4 mixed occupancy design option applications, the term "calculated occupancies" has been chosen as the appropriate section title. The reference to "separated" occupancies in several locations has been changed to use an appropriate, less confusing term. Approval of this proposal will result in more consistent application of IBC mixed occupancy provisions.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KEITH-G6B-508.4

G116–09/10
508.4

Proponent: John England, MCO, England Enterprises Inc., representing the Cities of Beaufort and Hardeeville, SC

Revise as follows:

508.4 Separated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered separated occupancies.

Exception: Covered mall and open mall buildings complying with Section 402 shall not be required to separate occupancies.

Reason: Since retails malls (open and enclosed) are unique. Reference should be given to the correct code sections when doing separation of spaces.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ENGLAND-G4-508.4.5.doc

G117–09/10
508.4.4

Proponent: Mike Ashley, CBO, representing: The Alliance for Fire and Smoke Containment and Control (AFSCC)

Revise as follows:

508.4.4 Separation. ~~Individual occupancies~~ Uses classified as different occupancy groups in accordance with Section 302.1 shall be separated from ~~adjacent occupancies~~ each other in accordance with Table 508.4.

Reason: This is an editorial clarification of this charging paragraph which implements the separation of occupancies option for buildings containing multiple occupancies of different occupancy groups. Currently, this section indicates that individual occupancies (which may be the same) are required to be separated from adjacent occupancies. However, that is not the case since this section deals with different occupancies located in the same building requiring fire barrier or horizontal assembly separations with fire-resistance ratings as specified in Table 508.4 to implement the separated occupancies option. Approving this code change proposal should result in better code interpretation and enforcement regarding the separation of mixed occupancies in buildings.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ASHLEY-G3-508.4.4

G118–09/10
Table 508.4

Proponent: Tony Crimi, A.C., Consulting Solutions Inc., representing North American Insulation Manufacturers Association

Delete the entire Table 508.4 and substitute as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

Use	A-1	A-2[e]	A-3	A-4	A-5	B[b]	E	F-1	F-2	H-1	H-2	H-3	H-4	H-5	I-1	I-2	I-3	I-4	M[b]	R-1	R-2	R-3, R-4	S-1	S-2[c]	U
A-1	--	2	2	2	2	2	2	3	2	NP	4	3	2	4	2	2	2	2	2	2	2	2	3	2	1
A-2[e]		--	2	2	2	2	2	3	2	NP	4	3	2	4	2	2	2	2	2	2	2	2	3	2	1
A-3			--	2	2	2	2	3	2	NP	4	3	2	4	2	2	2	2	2	2	2	2	3	2	1
A-4				--	2	2	2	3	2	NP	4	3	2	4	2	2	2	2	2	2	2	2	3	2	1
A-5					--	2	2	3	2	NP	4	3	2	4	2	2	2	2	2	2	2	2	3	2	1
B[b]						--	2	3	2	NP	2	1	1	1	2	2	2	2	2	2	2	2	3	2	1
E							--	3	2	NP	4	3	2	4	2	2	2	2	2	2	2	2	3	2	1
F-1								--	3	NP	2	1	1	1	3	3	3	3	3	3	3	3	3	3	3
F-2									--	NP	2	1	1	1	2	2	2	2	2	2	2	2	3	2	2
H-1										--	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
H-2											--	1	2	2	4	4	4	4	2	4	4	4	2	2	1
H-3												--	1	1	4	3	3	3	1	3	3	3	1	1	1
H-4													--	1	4	4	4	4	1	4	4	4	1	1	1
H-5														--	4	4	4	3	1	4	4	4	1	1	3
I-1															--	2	2	2	2	2	2	2	4	3	2
I-2																--	2	2	2	2	2	2	3	2	1
I-3																	--	2	2	2	2	2	3	2	1
1-4																		--	2	2	2	2	3	2	1
M[b]																			--	2	2	2	3	2	1
R-1																				--	2	2	3	2	1
R-2																					--	2	3	2	1
R-3, R-4																						--	3	2[d]	1[d]
S-1																							--	3	3
S-2[c]																									1
U																									--

For SI: 1 square foot = 0.0929 m^2.
NP = Not permitted.

a. Except for Group H and I-2 occupancies, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, the fire-resistance ratings shall be reduced by 1 hour but to not less than 1 hour and to not less than the required floor construction according to the type of construction.
b. Occupancy separation need not be provided for storage areas within Groups B and M if the:
   1. Area is less than 10 percent of the floor area;
   2. Area is provided with an automatic sprinkler system and is less than 3,000 square feet; or
   3. Area is less than 1,000 square feet.

c. Areas used only for private or pleasure vehicles shall be allowed to reduce separation by 1 hour.
d. See Section 406.1.4. for private garages and carports.
e. Commercial kitchens need not be separated from the restaurant seating areas that they serve.

Reason: This proposal aims to restore the previous Table 302.3.2 from the 2003 IBC, but retain the modified text of section 508 on Mixed Use & Occupancy. In addition to restoring the separated uses (occupancies) concept previously prescribed in Section 302 of the 2003 IBC (and 2003 Supp), the proposal clarifies the distinction between separated uses and the non-separated use options. During the 2006 cycle the separated uses section of the IBC was changed based on public proposal G32-04/05 on the basis that it presented no significant technical changes. To the contrary, there are more than 100 changes in fire resistance ratings resulting from this proposal, most without justification or supporting rationale. The result of this Code change is to reduce the level of protection provided by the IBC over any of the previous Legacy Codes.

Approximately 40% of the jurisdictions who have adopted the IBC are now using the 2006 (or later) edition. In contrast, when this Code change was first accepted in the 2006 IBC, few jurisdictions had any history with the lack of fire resistance rated construction between occupancies which the 2006 and 2009 IBC now permits. As a result, there is a growing level of concern with the reductions in fire resistance ratings between separated occupancies in mixed occupancy buildings in the 2006 IBC. The adoption of this Code change in the 2006 and 2009 IBC arbitrarily reduced fire resistance ratings to levels significantly below most of the Legacy Codes, without providing any compensating safety measures. The full impact of this change has not yet been felt. This change needs to be corrected, and a selective process of review, consideration, and justification undertaken to determine which, if any, of these changes are desirable and justifiable.

The concept of separation of major occupancies exists in Building regulations throughout the world. Certainly, those occupancy separations requirements used in the separated occupancies option have stood the test of time. There continues to be a critical need to separate adjacent major occupancies of dissimilar use, with fire-resistance rated construction. This proposal would delete the current Table 508.4 in its entirety and substitute the previous Table 302.3.2 which was replaced in Code Change G32-04/05. The previous Table 302.3.2 had been is use for the three plus years it existed in the 2000 and 2003 editions of the IBC. Furthermore, the occupancy separation fire resistance ratings from this predecessor table were taken directly from the BOCA National Building Code, along with the entire concept of the non-separated and separated occupancies in mixed occupancy buildings. The occupancy separation Table had existed in the BOCA National Building Code for a very long time, and was incorporated into the first edition of the IBC. The concept of separation of major occupancies exists in Building regulations throughout the world. Certainly, those occupancy separations requirements used in the separated occupancies option have stood the test of time. There continues to be a

In the published "Report of the Public Hearing on the 2003 editions of the International Building Code", the committee's published reason for recommending adoption of G32-04/05 is reported as follows: "The proposal does not have any significant technical changes from the current requirements." In reality, this code change proposals has lead to over 100 changes to required fire resistance ratings for occupancy separation, in both sprinklered and unsprinklered occupancies, without providing individual justifications of any kind.

To illustrate some specific examples, this change has unilaterally reduced the fire separation between a mixed use office and a moderate hazard warehouse from the previously existing 3-hour minimum fire separation to zero, while providing no technical justification or compensating measures. Table 302.3.2 of the 2003 IBC, as well as the Exception to Section 302.2.3 (IBC 2003 Supplement), specified a minimum fire resistance for every occupancy separation and did not permit a fire resistance rating to be less than one hour, even when an automatic sprinkler system was provided. In contrast, the new Table 302.3.2 allows numerous instances where the fire resistance ratings are waived entirely. Further, while Exception 1 of the old section 302.3.2 did not apply to Group H and I-2 areas, the revised Table in the new section 508 shows a reduction of 1-h in fire resistance rating between all I occupancies and for F-2, S-2, U, B, F-1, M, and S-1 without any justification or compensation. While it has been argued that a number of these separated use combinations are unrealistic, an equal number are very realistic and represent an unjustified reduction from current code requirements for fire-resistant construction. To unilaterally propose that a mixed use office and moderate hazard warehouse be reduced from the current 3-hour minimum fire separation to a zero separation is unjustifiable.

Bibliography & References:
[1] 2003 IBC, International Codes Council, Table 302.3.2
[2] 1996 BOCA National Building Code, BOCA
[3] 1997 Standard Building Code, SBCCI
[4] 1997 Uniform Building Code, ICBO

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: Alternative locations for allowance in the footnotes to the table would be as exceptions to Sections 508.3.3 and 508.4.4.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CRIMI-G3-TABLE 508.4.doc

G119–09/10
Table 508.4

Proponent: William E. Koffel, Koffel Associates, Inc, representing Firestop Contractors International Association

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

	A[d], E		I-1,I-3, I-4		I-2		R		F-2, S-2[b], U		B, F-1,M, S-1		H-1		H-2		H-3, H-4, H-5	
OCCUPANCY	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
A[d], E	N	N	1	2	2	NP	1	2	N	1	1	2	NP	NP	3	4	2	3[a]
I-1, I-3, I-4			N	N	2	NP	1	NP	1	2	1	2	NP	NP	3	NP	2	NP
I-2					N	N	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R							N	N	1[c]	2[c]	1	2	NP	NP	3	NP	2	NP
F-2, S-2[b], U									N	N	1	2	NP	NP	3	4	2	3[a]
B, F-1, M, S-1											N	N	NP	NP	2	3	1	2[a]
H-1													N	NP	NP	NP	NP	NP
H-2															N	NP	1	NP
H-3, H-4, H-5																	1[e,f]	NP

For SI: 1 square foot = 0.0929 m^2.

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.
a. For Group H-5 occupancies, see Section 903.2.4.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than one hour.
c. See Section 406.1.4<u>, 709.1, and 712.3.</u>
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.

Reason: Confusion has existed as to why there is for fire partitions to separate dwelling units and sleeping units in Groups R-1 and R-2 when there is no need to separate Group R occupancies. Similar to the required separation between the dwelling unit and a garage, the additional language will clarify that the requirements of Sections 709.1 and 712.3 still apply.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KOFFELL-G1-TABLE 508.3.3

G120–09/10
Table 508.4

Proponent: Stephen Thomas, Colorado Code Consulting, LLC, representing The Colorado Chapter ICC

Revise table notes as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

(Portions of table not shown are unchanged)

For SI: 1 square foot = 0.0929 m^2.
S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.4.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than one hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the ~~restaurant seating~~ dining areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.

Reason: Even though footnote e is included with the E occupancies in Table 508.4, a code official has interpreted that this footnote does not apply to the cafeteria in a school. In my opinion there is no difference in the two uses. However, it can be argued that a cafeteria in a school is not a "restaurant" which is specifically stated in the footnote. This change clarifies the intent that the footnote applies to any type of dining area that is adjacent to a commercial kitchen.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THOMAS-G2-T508.4

G121–09/10
Table 508.4

Proponent: Lou Malattia representing Washington Association of Building Officials

Revise table notes as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

(Portions of table not shown are unchanged)

For SI: 1 square foot = 0.0929 m^2.
S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.4.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the ~~restaurant~~ seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.

Reason: There has been some confusion regarding school cafeterias and whether or not an occupancy separation is required between the dining area and the kitchen. By eliminating the word "restaurant", it makes it clearer that all dining areas are not required to be separated from the kitchen which serves it.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MALATTIA-G4-TABLE 508.4

G122–09/10
Table 508.4, 303.1 (IFC [B] 202)

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

	A[~~d~~], E		I-1, I-3, I-4		I-2		R		F-2, S-2[b], U		B, F-1, M, S-1		H-1		H-2		H-3, H-4, H-5	
OCCUPANCY	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
A[~~d~~], E	N	N	1	2	2	NP	1	2	N	1	1	2	NP	NP	3	4	2	3[a]
I-1, I-3, I-4	—	—	N	N	2	NP	1	NP	1	2	1	2	NP	NP	3	NP	2	NP
I-2	—	—	—	—	N	N	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R	—	—	—	—	—	—	N	N	1[c]	2[c]	1	2	NP	NP	3	NP	2	NP
F-2, S-2[b], U	—	—	—	—	—	—	—	—	N	N	1	2	NP	NP	3	4	2	3[a]
B, F-1, M, S-1	—	—	—	—	—	—	—	—	—	—	N	N	NP	NP	2	3	1	2[a]
H-1	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	NP	NP	NP	NP
H-2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	1	NP
H-3, H-4, H-5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 [d,e,~~f~~]	NP

For SI: 1 square foot = 0.0929 m^2.

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

N = No separation requirement.

NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.4.2.

b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than 1 hour.

c. See Section 406.1.4.

~~d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.~~

~~e~~ d. Separation is not required between occupancies of the same classification.

~~f~~ e. For Group H-5 occupancies, see Section 415.8.2.2.

303.1 (IFC [B] 202) Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation.

A-2 Assembly uses intended for food and/or drink consumption including, but not limited to:

Banquet halls
Nightclubs
Restaurants (including associated commercial kitchens)
Taverns and bars

(Portions of text not shown remain unchanged)

Reason: This proposal deletes a somewhat confusing and unnecessary commercial kitchen exception from Table 508.4 in favor of clarifying that the restaurant and associated kitchen are the same Group A-2 occupancy in Section 303.1. The current footnote reference d is shown as applicable to Group A occupancies. Occupancy separations are not required within Group A occupancies, therefore the footnote is extraneous and moot. Approval of this proposal will place the commercial kitchen provision in the proper context of occupancy classification as opposed to mixed occupancy.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: Because the code requires buildings containing either Group I or R occupancies to be fully sprinkler protected, the Code Correlation Committee has replaced all numeric values in cells indicating a NS (non sprinklered) Group I or R occupancy building with NP for not permitted.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KEITH-G6A-508.4

G123–09/10
Table 508.4

Proponent: Carroll Lee Pruitt, FAIA, NCARB, Pruitt Consulting, Inc.

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)[g]

	A[d], E		I-1,I-3, I-4		I-2		R		F-2, S-2[b], U		B, F-1,M, S-1		H-1		H-2		H-3, H-4, H-5	
OCCUPANCY	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
A[d], E	N	N	1	2	2	NP	1	2	N	1	1	2	NP	NP	3	4	2	3[a]
I-1, I-3, I-4			N	N	2	NP	1	NP	1	2	1	2	NP	NP	3	NP	2	NP
I-2					N	N	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R							N	N	1[c]	2[c]	1	2	NP	NP	3	NP	2	NP
F-2, S-2[b], U									N	N	1	2	NP	NP	3	4	2	3[a]
B, F-1, M, S-1											N	N	NP	NP	2	3	1	2[a]
H-1													N	NP	NP	NP	NP	NP
H-2															N	NP	1	NP
H-3, H-4, H-5																	1[e,f]	NP

a. For Group H-5 occupancies, see Section 903.2.4.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than one hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.
g. Where this table does not require a separation between individual occupancies, such occupancies must be separated by full height partitions (floor to ceiling), fire partitions, fire barriers, smoke barriers, smoke partitions, fire walls, rated or non-rated horizontal assemblies or other approved means.

Reason: Unless the area of these occupancies not requiring separation is clearly delineated on the plans, there is no way to determine compliance with Section 508.4.2 (mixed area ratio). The issue here is that the building area limitations in Table 503 are not the same for each of the occupancies that are not required to be separated, thus if the areas of each separated occupancy are not clearly delineated, there is no way to establish the area of each of occupancy and the mixed area ratio. For example, a Group B occupancy is not required to be separated from a Group M occupancy; however, a Group B occupancy of Type IIB Construction has a base area of 23,000 s.f. where a Group M occupancy has a base area of 12,500 s.f.

Cost Impact: The code change proposal may increase the cost of construction.

Analysis: The reference to footnote g is placed at the end of the title of the table. Because the code requires buildings containing either Group I or R occupancies to be fully sprinkler protected, the Code Correlation Committee has replaced all numeric values in cells indicating a NS (non sprinklered) Group I or R occupancy building with NP for not permitted.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: PRUITT-G3-TABLE 508.4.doc

G124–09/10
Table 508.4

Proponent: Jason Thompson, National Concrete Masonry Association, representing the Masonry Alliance for Codes and Standards

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

	A[d], E		I-1, I-3, I-4		I-2,		R		F-2, S-2[b], U		B, F-1, M, S-1		H-1		H-2		H-3,H-4, H-5	
OCCUPANCY	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
A[d], E	N	N	1	2	2	NP	~~1~~ 2	~~2~~NP	N	1	1	2	NP	NP	3	4	2	3[a]
I-1, I-3, I-4	—	—	N	N	2	NP	~~1~~ 2	NP	1	~~2~~NP	1	2	NP	NP	3	NP	2	NP
I-2	—	—	—	—	N	N	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R	—	—	—	—	—	—	N	N	~~1~~[c] 2	~~2~~[e]NP	~~1~~ 2	2	NP	NP	3	NP	2	NP
F-2, S-2[b], U	—	—	—	—	—	—	—	—	N	N	1	2	NP	NP	3	4	2	3[a]
B, F-1, M, S-1	—	—	—	—	—	—	—	—	—	—	N	N	NP	NP	2	3	1	2[a]
H-1	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	NP	NP	NP	NP
H-2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	1	NP
H-3, H-4, H-5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1[e,f]	NP

For SI: 1 square foot = 0.0929 m^2.

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.5.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than 1 hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.

Reason: Group R occupancies involve a living environment that has persons sleeping and who may not be aware of their surroundings should an emergency due to fire begin to develop. Because of this there is need to provide a higher degree of fire resistive separation than might normally be provided between occupancies where the persons in the buildings are alert to their surroundings such as Group A, B, E, F, M or S . This proposal increases the fire resistance between Group R occupancies and all other occupancies to 2-hours to reduce the risk of fire spreading while the occupants are sleeping.

The code change also corrects several cells in the table where the table implies you can have fire separation between an unsprinklered Group I-1, I-3, I-4 and R occupancies and other occupancy groups. All Group I-1, I-3, I-4 and R occupancies are required to be fully sprinklered.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: A question is how this proposed change would coordinate with the separation requirements in Section 406.1.4, which is referenced in note c.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THOMPSON-G1-T508.4

G125–09/10
Table 508.4

Proponent: Maureen Traxler, City of Seattle, WA, Seattle Dept of Planning & Development

Revise table as follows:

Table 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

Occupancy	A[d], E		I-1, I-3, I-4		I-2		R		F-2, S-2[b], U		B, F-1, M, S-1		H-1		H-2		H-3, H-4, H-5	
	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS
A[d], E	N	N	1	2	2	NP	1	2	N	1	1	2	NP	NP	3	4	2	3[a]
I-1, I-3, I-4	-	-	N	N	2	NP	1	NP	1	2	1	2	NP	NP	3	NP	2	NP
I-2	-	-	-	-	N	N	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R	-	-	-	-	-	-	N	N	1[c]	2[c]	1	2	NP	NP	3	NP	2	NP
F-2, S-2[b], U	-	-	-	-	-	-	-	-	N	N	~~1~~N	~~2~~N	NP	NP	3	4	2	3[a]
B, F-1, M, S-1	-	-	-	-	-	-	-	-	-	-	N	N	NP	NP	2	3	1	2[a]
H-1	-	-	-	-	-	-	-	-	-	-	-	-	N	NP	NP	NP	NP	NP
H-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	NP	1	NP
H-3, H-4, H-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1[e,f]	NP

(Notes to the table remain unchanged)

Reason: Table 508.4 allows an unrated separation between Groups B/M/U occupancies and Group F-1/S-1 (moderate-hazard) occupancies yet requires a 2-hr separation between Groups B/M/U occupancies and Group F-2/S-2 (low-hazard) occupancies. It is not appropriate to require a higher level of separation from an occupancy of lower hazard. This proposal amends the separation requirements so the low-hazard occupancies Group F-2 and S-2 no longer require a level of separation higher than that of the moderate-hazard occupancies Groups F-1 and S-1.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: Because the code requires buildings containing either Group I or R occupancies to be fully sprinkler protected, the Code Correlation Committee has replaced all numeric values in cells indicating a NS (non sprinklered) Group I or R occupancy building with NP for not permitted.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: TRAXLER-G4-T508.4.doc

G126–09/10
Table 508.4

Proponent: Patrick Vandergriff, Vandergriff Code Consulting Services, representing himself

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

OCCUPANCY	A[d], E		I-1, I-3, I-4		I-2		R		F-2, S-2[b], U		M[g]		B[g]		~~B, M,~~ S-1, F-1		H-1		H-2		H-3, H-4, H-5	
	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS
A[d], E	N	N	1	2	2	NP	1	2	N	1	1	2	1	2	1	2	NP	NP	3	4	2	3[a]
I-1, I-3, I-4			N	N	2	NP	1	NP	1	2	1	NP	1	NP	1	2	NP	NP	3	NP	2	NP
I-2					N	N	2	NP	2	NP	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R							N	N	1[c]	2[c]	1	NP	1	NP	1	2	NP	NP	3	NP	2	NP
F-2, S-2[b], U									N	N	1	2	1	2	1	2	NP	NP	3	4	2	3[a]
M[g]											N	N	1	2	1	2	NP	NP	2	3	1	2[a]
B[g]													N	N	1	2	NP	NP	2	3	1	2[a]
~~B, M~~, S-1, F-1															N	N	NP	NP	2	3	1	2[a]
H-1																	N	NP	NP	NP	NP	NP
H-2																			N	NP	1	NP
H-3, H-4, H-5																					1[e,f]	NP

For SI: 1 square foot = 0.0929 m^2.

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.4.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than one hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.
g. Occupancy separation need not be provided for storage areas within Groups B and M occupancies if the:
   1. Area is less than 10 percent of the floor area;
   2. Area is provided with an automatic sprinkler system and is less than 3,000 square feet; or
   3. Area is less than 1,000 square feet.

Reason: There change provides for separation of the B and M occupancies into their own position within the chart and corresponds to a chart that is in the proposed adoption of the 2009 IBC for the state of New York. The purpose is to provide for closer correlation within the codes in an effort to have fewer amendments in various jurisdictions.

Cost Impact: The code change proposal will not increase the cost of construction. Increase in a small percentage of projects.

Analysis: Alternative locations for this allowance rather than as a footnote to a table would be as exceptions to Sections 508.3.3 and 508.4.4. Because the code requires buildings containing either Group I or R occupancies to be fully sprinkler protected, the Code Correlation Committee has replaced all numeric values in cells indicating a NS (non sprinklered) Group I or R occupancy building with NP for not permitted.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: VANDERGRIFF-G1-TABLE 508.4.doc

G127–09/10
Table 508.4

Proponent: Tony Crimi, A.C. Consulting Solutions Inc., representing International Firestop Council

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

	A[d], E		I-1, I-3, I-4		I-2		R		F-2, S-2[b], U		~~B,~~ F-1, M, S-1		B		H-1		H-2		H-3, H-4, H-5	
OCCUPANCY	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
A[d], E	N	N	1	2	2	NP	1	2	N	1	1	2	1	2	NP	NP	3	4	2	3[a]
I-1, I-3, I-4			N	N	2	NP	1	NP	1	2	1	2	1	NP	NP	NP	3	NP	2	NP
I-2					N	N	2	NP	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R							N	N	1[c]	2[c]	1	2	1	NP	NP	NP	3	NP	2	NP
F-2, S-2[b], U									N	N	1	2	1[g]	2[g]	NP	NP	3	4	2	3[a]
~~B,~~ F-1, M, S-1											N	N	1[g]	2[g]	NP	NP	2	3	1	2[a]
B													N	N	NP	NP	2	3	1	2[a]
H-1															N	NP	NP	NP	NP	NP
H-2																	N	NP	1	NP
H-3, H-4, H-5																			1[e,f]	NP

For SI: 1 square foot = 0.0929 m^2.

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.5.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than 1 hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.
g. Occupancy separation need not be provided for storage areas associated with a Group B occupancy if the:
   1. Area is less than 10 percent of the floor areas;
   2. Area is provided with an automatic sprinkler system and is less than 3,000 square feet; or
   3. Area is less than 1,000 square feet.

Reason: The purpose of this Code change is to break out the Group B Occupancies from Groups F-1, M, and S-1 since the current grouping in Table 508.4 does not represent similar hazards, and results in no fire separations being required between these.

This proposal aims to restore a portion of the level of protection afforded in the 2003 IBC and many of the Legacy Codes. While the current Table 508.4 was first revised for the 2006 IBC, few jurisdictions had any history with the lack of fire resistance rated separations between occupancies which the 2006 IBC would now permit.

As the table is currently formatted for required separation of occupancies under the separated occupancies option of Section 508.4, there is no occupancy separation required between any of the occupancies in the B, F-1, M, and S-1 Grouping, as indicated by the letter "N" contained in the table for those occupancy groups. However, a Group B occupancy generally has a significantly lower fire load than the Group F-1, M, and S-1 occupancies, and the occupancy hazard is different as well.

If Table 508.4 truly implements the separated occupancies option which mandates occupancy separations as compared to the nonseparated occupancies option in Section 508.3 which does not, it follows that there should be occupancy separations required between occupancies with different hazard characteristics. Group B occupancies generally have combustible fire loads less than 10 pounds per sq ft, as compared to the Group F-1, M, and S-1 occupancies which could have fire loads as much as 20 to 30 pounds per sq ft or more. Therefore, we have proposed a minimum 2-hour occupancy separation between the Group B occupancies and the Group F-1, M, and S-1 occupancies in nonsprinklered buildings and a minimum 1-hour fire-resistance rating in sprinklered buildings. This is consistent with the other occupancy classifications requiring occupancy separations between them and the Group F-1, M, and S-1 occupancies.

It should also be noted that this is consistent with the required occupancy separation for Group B/M mixed occupancies in former Table 302.3.2 of the 2003 IBC which Table 508.4 replaced in the 2006 IBC. And it is actually less restrictive than former Table 302.3.2 for the Group B/F-1 and Group B/S-1 mixed occupancies separations.

The concept of separation of major occupancies exists in Building regulations throughout the world. Certainly, those occupancy separations requirements used in the separated occupancies option have stood the test of time. There continues to be a critical need to separate adjacent major occupancies of dissimilar use, with fire-resistance rated construction. The previous Table 302.3.2 had been is use for the three plus years it existed in the 2000 and 2003 editions of the IBC. Furthermore, the occupancy separation fire resistance ratings from this predecessor table were taken directly from the BOCA National Building Code, along with the entire concept of the non-separated and separated occupancies in mixed occupancy buildings.

As currently published, the 2009 Code provisions in Section 508 blur the distinction between separated uses and the non-separated use options previously prescribed in Section 302.3.1. The full impact of this change has not yet been felt.

The proposal also adds a footnote g which is essentially the footnote that was provided for storage associated both Group B and M occupancies in Table 508.3.3 of the 2006 IBC. Based on the limited separations between the B, M and S occupancies, the footnote was determined unneeded and removed for the 2009 edition. With the reestablishment of separations between Group B and the S occupancies, this previous footnote should be re-established.

Bibliography & References:
[1] 2003 IBC, International Codes Council, Table 302.3.2
[2] 1996 BOCA National Building Code, BOCA
[3] 1997 Standard Building Code, SBCCI
[4] 1997 Uniform Building Code, ICBO

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: Alternative locations for this allowance rather than as a footnote to a table would be as exceptions to Sections 508.3.3 and 508.4.4. Because the code requires buildings containing either Group I or R occupancies to be fully sprinkler protected, the Code Correlation Committee has replaced all numeric values in cells indicating a NS (non sprinklered) Group I or R occupancy building with NP for not permitted.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CRIMI-G1-TABLE 508.4.doc

G128–09/10
Table 508.4

Proponent: Mike Ashley C.B.O. /Representing The Alliance for Fire & Smoke Containment & Control, Inc. (AFSCC)

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

	A[d], E		I-1, I-3, I-4		I-2		R		F-2, S-2[b], U		B, F-1, ~~M,~~ S-1		M		H-1		H-2		H-3, H-4, H-5	
OCCUPANCY	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
A[d], E	N	N	1	2	2	NP	1	2	N	1	1	2	1	2	NP	NP	3	4	2	3[a]
I-1, I-3, I-4			N	N	2	NP	1	NP	1	2	1	2	1	NP	NP	NP	3	NP	2	NP
I-2					N	N	2	NP	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R							N	N	1[c]	2[c]	1	2	1	NP	NP	NP	3	NP	2	NP
F-2, S-2[b], U									N	N	1	2	1[g]	2[g]	NP	NP	3	4	2	3[a]
B, F-1, ~~M,~~ S-1											N	N	1[g]	2[g]	NP	NP	2	3	1	2[a]
M													N	N	NP	NP	2	3	1	2[a]
H-1															N	NP	NP	NP	NP	NP
H-2																	N	NP	1	NP
H-3, H-4, H-5																			1[e,f]	NP

For SI: 1 square foot = 0.0929 m^2.

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.5.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than 1 hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.
g. Occupancy separation need not be provided for storage areas associated with a Group M occupancy if the:
   1. Area is less than 10 percent of the floor areas;
   2. Area is provided with an automatic sprinkler system and is less than 3,000 square feet; or
   3. Area is less than 1,000 square feet.

Reason: In this code change we propose to separate out the Group M occupancies from the grouping of occupancies which includes Groups B, F-1, M, and S-1 as is currently the case in Table 508.4 which is used for implementing the separated occupancies option of Section 508.4. It should be noted that the separated occupancies option requires different occupancies in the same building to be separated from each other based on the fire-resistance ratings specified in Table 508.4, as compared to the nonseparated occupancies option in Section 508.3 which does not require any fire-resistance-rated separation between occupancies. However, no occupancy separations are required between any of the occupancies in the grouping containing Group B, F-1, M, and S-1 occupancies since the letter "N" is entered in the table for those occupancy groups. This means that there is no separation requirement whatsoever.

By removing the Group M occupancies from that grouping and creating a separate entry for them, we have achieved a required separation of occupancies for the Group M occupancy from any of the Group B, F-1, or S-1 occupancies. We believe Group M occupancies should be separated from these other occupancies because of the relative hazard of a Group M occupancy as compared to the other occupancies both in terms of fire load and occupant life safety. Group M occupancies can contain fire loads as much as 20 pounds per sq ft or more depending upon the type of retail operations and, of course, they can contain high densities and numbers of people, especially during holiday seasons and special sales events, as compared to the other occupancies. Group B occupancies generally contain fire loads less than 10 pounds per sq ft so they should be separated in order to protect that occupancy from the higher fire exposure of the Group M occupancies. The Group F-1 and S-1 occupancies should be separated from the Group M occupancies mainly because of the occupant life safety hazard exposures from those occupancies to the occupants of the Group M occupancy. In this code change we are proposing a 2-hour occupancy separation for fire barrier walls and horizontal assemblies in nonsprinklered buildings and 1-hour for sprinklered buildings. This is consistent with the occupancy separations contained in the current table between the Group B, F-1, M, and S-1 occupancies and all other occupancies except Group H-2. We believe that those occupancy combinations represent similar relative hazards in terms of fire and life safety.

The proposal also adds a footnote g which is essentially the footnote that was provided for storage associated both Group B and M occupancies in Table 508.3.3 of the 2006 IBC. Based on the limited separations between the B, M and S occupancies, the footnote was determined unneeded and removed for the 2009 edition. With the reestablishment of separations between Group M and the S occupancies, this previous footnote should be re-established.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: Alternative locations for this allowance rather than as a footnote to a table would be as exceptions to Sections 508.3.3 and 508.4.4. Because the code requires buildings containing either Group I or R occupancies to be fully sprinkler protected, the Code Correlation Committee has replaced all numeric values in cells indicating a NS (non sprinklered) Group I or R occupancy building with NP for not permitted.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ASHLEY-G2-TABLE 508.4

G129–09/10
Table 508.4

Proponent: Jason Thompson, National Concrete Masonry Association, representing the Masonry Alliance for Codes and Standards

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

	A[d], E		**I-1, ~~I-3,~~ I-4**		**I-2, I-3**		**R**		**F-2, S-2[b], U**		**B, F-1, M, S-1**		**H-1**		**H-2**		**H-3,H-4, H-5**	
OCCUPANCY	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
A[d], E	N	N	1	2	2	NP	1	2	N	1	1	2	NP	NP	3	4	2	3[a]
I-1, ~~I-3,~~ I-4	__	__	~~N~~ 1[e]	NP	2	NP	1	NP	1	~~2~~NP	1	~~2~~NP	NP	NP	3	NP	2	NP
I-2, I-3	__	__	__	__	~~N~~ 2[e]	NP	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R	__	__	__	__	__	__	N	N	1[c]	2[c]	1	2	NP	NP	3	NP	2	NP
F-2, S-2[b], U	__	__	__	__	__	__	__	__	N	N	1	2	NP	NP	3	4	2	3[a]
B, F-1, M, S-1	__	__	__	__	__	__	__	__	__	__	N	N	NP	NP	2	3	1	2[a]
H-1	__	__	__	__	__	__	__	__	__	__	__	__	N	NP	NP	NP	NP	NP
H-2	__	__	__	__	__	__	__	__	__	__	__	__	__	__	N	NP	1	NP
H-3, H-4, H-5	__	__	__	__	__	__	__	__	__	__	__	__	__	__	__	__	1[e,f]	NP

For SI: 1 square foot = 0.0929 m^2.

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.5.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than 1 hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.

Reason: This proposed code change accomplishes several things. First, it relocates the Group I-3 occupancies to the same cells as the Group I-2 occupancies. Second, it requires that the Group I-1 and Group I-4 occupancies be separated from each other with a minimum 1-hour fire-resistance rating. Third, it also clarifies the table regarding the Group I occupancies for the NS columns where some of the individual cell entries have been changed to "NP." This recognizes the fact that the entire building containing a Group I occupancy is required to be protected with an automatic sprinkler system throughout even where there are other mixed occupancies that may be separated with fire barriers or horizontal assemblies that would otherwise not be required to be sprinklered.

Group I-3 occupancies should be treated the same as the Group I-2 occupancy when the separated occupancies option of Section 508.4 is used since they have similar relative hazards. This is also consistent with the 2009 NFPA 101 Life Safety Code which requires a minimum 2-hour fire-resistance rating for all occupancy separations involving detention and correctional facilities and other occupancies in the same building as specified in Tables 6.1.14.4.1(a) and (b) Required Separation of Occupancies (hours), Part 1 and Part 2. The separated occupancies option section in Section 508.4 of the 2009 IBC, refers to Table 508.4 Required Separation of Occupancies (hours) for determining the fire-resistance rating of the occupancy separation depending upon the occupancies being separated. However, the way the table is currently structured, a Group I-3 occupancy would not be required to be separated from a Group I-1 or I-4 occupancy because they are grouped together.

As indicated previously, this amendment will also require that a Group I-1 occupancy be separated from a Group I-4 occupancy with a minimum 1-hour fire-resistance-rated separation. This would be consistent with the Table 508.4 requirement that these occupancies be separated from Group R occupancies with a minimum 1-hour fire-resistance rating.

Also Footnote e has been added to the 1-hour rating for the I-1/I-4 occupancies to indicate that where the occupancy classification is the same, then there is no separation required. In other words, this would not require, as is currently the case, an occupancy separation for a Group I-1 occupancy and an adjacent Group I-1 occupancy in the same building, or similarly for a Group I-4 occupancy adjacent to another Group I-4 occupancy in the same building. And, a footnote has been added for the Group I-2 and I-3 occupancies for the same reason.

Finally, for the Group I-1 occupancies, this amendment is consistent with Exception 3 to Section 508.2.4 Separation of Occupancies for accessory occupancies, Exception 2 to Section 508.3.3 Separation for nonseparated occupancies, and Section 420.2 Separation Walls for Group I-1 sleeping/dwelling units.

The code change also corrects several cells in the table where the table implies you can have fire separation between an unsprinklered Group 1-1, I-3, I-4 occupancies and other occupancy groups. All Group I and R occupancies are required to be fully sprinklered.

In conclusion, this amendment will clarify where the required occupancy separations are to be provided under the separated occupancies option of the 2009 IBC for all Group I occupancies while making the code internally consistent.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: Because the code requires buildings containing either Group I or R occupancies to be fully sprinkler protected, the Code Correlation Committee has replaced all numeric values in cells indicating a NS (non sprinklered) Group I or R occupancy building with NP for not permitted.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THOMPSON-G3-T508.4

G130–09/10
Table 508.4

Proponent: Stephen V. Skalko, P.E., Portland Cement Association

Revise table as follows:

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

	A[d], E		**I-1, I-3, I-4**		**I-2**		**R**		**F-2, S-2[b], U**		**B, ~~F-1, M, S-1~~**		**F-1, S-1**		**H-1**		**H-2**		**H-3, H-4, H-5**	
OCCUPANCY	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**	**S**	**NS**
A[d], E	N	N	1	2	2	NP	1	2	N	1	1	2	2	3	NP	NP	3	4	2	3[a]
I-1, I-3, I-4			N	N	2	NP	1	NP	1	2	1	~~2~~NP	2	NP	NP	NP	3	NP	2	NP
I-2					N	N	2	NP	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP
R							N	N	1[c]	2[c]	1	~~2~~NP	2	NP	NP	NP	3	NP	2	NP
F-2, S-2[b], U									N	N	1	2	2	3	NP	NP	3	4	2	3[a]
B, ~~F-1~~, M~~, S-1~~											N	N	2	3	NP	NP	2	3	1	2[a]
F-1, S-1													N	N	NP	NP	2	3	1	2[a]
H-1															N	NP	NP	NP	NP	NP
H-2																	N	NP	1	NP
H-3, H-4, H-5																			1[e,f]	NP

For SI: 1 square foot = 0.0929 m^2.

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.5.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than 1 hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.

Reason: In this code change Group F-1 and S-1 occupancies are proposed to be separated out from the grouping of occupancies which includes Groups B, F-1, M, and S-1 as is currently the case in Table 508.4 which is used for implementing the separated occupancies option of Section 508.4. It should be noted that the separated occupancies option requires different occupancies in the same building to be separated from each other based on the fire-resistance ratings specified in Table 508.4 as compared to the nonseparated occupancies option in Section 508.3 which does not require any fire-resistance-rated separation between different occupancies. However, no occupancy separations are required between any of the occupancies in the grouping containing Group B, F-1, M, and S-1 occupancies since the letter "N" is entered in the table for those occupancy groups. This means that there is no separation requirement whatsoever even though the Group F-1 and S-1 occupancies may contain significantly greater fire loads than the Group B and M occupancies.

If Table 508.4 truly implements the separated occupancies option which mandates occupancy separations between mixed occupancies in the same building as compared to the nonseparated occupancies option in Section 508.3 which does not, it follows that there should be occupancy separations required between occupancies with different hazard characteristics. By removing the Group F-1 and S-1 occupancies from the grouping of the Group B, F-1, M, and S-1 occupancies and creating a separate entry for them in the table, a required separation of occupancies for the Group F-1 and S-1 occupancies from any of the Group B and M occupancies is achieved. This is based on the premise that the Group F-1 and S-1 occupancies should be separated from these occupancies because of the relative hazard of the Group F-1 and S-1 occupancy as compared to the Group B and M occupancies both in terms of the fire load and occupant life safety. Group F-1 and S-1 occupancies can contain fire loads as much as 20 to 30 pounds per sq ft or more. This can represent a significant fire exposure to the adjacent Group B and/or M occupancies in the same building which may also have significant numbers of occupants representing a potential life safety hazard.

Therefore, this proposal requires a minimum 3-hour occupancy separation for fire barrier walls and horizontal assemblies in nonsprinklered buildings and 2-hours for sprinklered buildings. This is consistent with the occupancy separations contained in the current table between the Group B, F-1, M, and S-1 occupancies and the Group H-2 occupancies. This occupancy usually has an occupancy combination that represents a similar relative hazard in terms of fire and life safety. This is also consistent with Table 707.3.9 for the separation of fire areas and Table 706.4 Fire Wall Fire-Resistance Ratings. It should also be noted that these proposed occupancy separations are consistent with the required occupancy separations for Group F-1 and S-1 mixed occupancies in former Table 302.3.2 of the 2003 IBC which Table 508.4 replaced in the 2006 IBC.

The code change also corrects several cells in the table where the table implies you can have fire separation between an unsprinklered Group I-1, I-3, I-4 and R occupancies and other occupancy groups. All Group I-1, I-3, I-4 and R occupancies are required to be fully sprinklered.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: Because the code requires buildings containing either Group I or R occupancies to be fully sprinkler protected, the Code Correlation Committee has replaced all numeric values in cells indicating a NS (non sprinklered) Group I or R occupancy building with NP for not permitted.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: SKALKO-G1-T508.4

G131–09/10
509.2

Proponent: Lou Malattia representing Washington Association of Building Officials

Revise as follows:

509.2 Horizontal building separation allowance. A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of *fire walls,* limitation of number of stories and type of construction where all of the following conditions are met:

1. The buildings are separated with a horizontal assembly having a minimum 3-hour fire-resistance rating.
2. The building below the horizontal assembly is no more than one story above grade plane.
3. The building below the horizontal assembly is of Type IA construction.
4. Shaft, stairway, ramp and escalator enclosures through the horizontal assembly shall have not less than a 2-hour fire-resistance rating with opening protectives in accordance with Section 715.4.

   Exception: Where the enclosure walls below the horizontal assembly have not less than a 3-hour fire resistance rating with opening protectives in accordance with Section 715.4, the enclosure walls extending above the horizontal assembly shall be permitted to have a 1-hour fire-resistance rating, provided:

   1. The building above the horizontal assembly is not required to be of Type I construction;
   2. The enclosure connects less than four stories <u>above the horizontal assembly</u>; and
   3. The enclosure opening protectives above the horizontal assembly have a minimum 1-hour fire protection rating.

5. The building or buildings above the horizontal assembly shall be permitted to have multiple Group A occupancy uses, each with an occupant load of less than 300, or Group B, M, R or S occupancies.
6. The building below the horizontal assembly shall be protected throughout by an approved automatic sprinkler system in accordance with Section 903.3.1.1, and shall be permitted to be any of the following occupancies:
   6.1. Group S-2 parking garage used for the parking and storage of private motor vehicles;

6.2. Multiple Group A, each with an occupant load of less than 300;
6.3. Group B;
6.4. Group M;
6.5. Group R; and
6.6. Uses incidental to the operation of the building (including entry lobbies, mechanical rooms, storage areas and similar uses).

7. The maximum building height in feet shall not exceed the limits set forth in Section 503 for the building having the smaller allowable height as measured from the grade plane.

Reason: To provide clarification of this exception. There has been some conflicting code opinions and this exception. Section 509.2, Condition #4, the exception Item 4.2, which reads, "The enclosure connects less than four stories;", has been interpreted by some jurisdictions to mean that the Group S-2 level below the 3-hour separation is considered to be a level for the purposes of this exception, and therefore only permitting two stories above the horizontal separation.

The intent of the code is to permit Group A occupancies less than 300, Groups B or M occupancies to be considered separate buildings for the purpose of determining area limitations, continuity of fire wall, limitation of number of stories and type of construction. A typical building type using this provision is a three story wood framing apartment building above an enclosed concrete parking level.

The exception to condition #4 permits the two hour shaft to be reduced to one hour provided that the enclosure walls below the horizontal assembly is increased to a three hour fire-resistance rating. This additional protection permits three levels above the horizontal assembly to be protected with one hour shafts instead of the two- hour assembly.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MALATTIA-G3-509.2

G132–09/10
509.2

Proponent: David Maret, New World Plan Review, LLC

Revise as follows:

509.2 Horizontal building separation allowance. A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of *fire walls,* limitation of number of stories and type of construction where all of the following conditions are met:

1. The buildings are separated with a *horizontal assembly* having a minimum 3-hour *fire-resistance rating*.
2. The building below the *horizontal assembly* is no more than one *story above grade plane*.
3. The building below the *horizontal assembly* is of Type IA construction.
4. Shaft, *stairway*, ramp and escalator enclosures through the *horizontal assembly* shall have not less than a 2-hour *fire-resistance rating* with opening protectives in accordance with Section 715.4.

   Exception: Where the enclosure walls below the *horizontal assembly* have not less than a 3-hour *fire-resistance rating* with opening protectives in accordance with Section 715.4, the enclosure walls extending above the *horizontal assembly* shall be permitted to have a 1-hour *fire-resistance rating*, provided:

   1. The building above the *horizontal assembly* is not required to be of Type I construction;
   2. The enclosure connects less than four *stories* <u>measured from above the 3-hour horizontal assembly</u>; and
   3. The enclosure opening protectives above the *horizontal assembly* have a minimum 1-hour *fire protection rating*.

5. The building or buildings above the *horizontal assembly* shall be permitted to have multiple Group A occupancy uses, each with an *occupant load* of less than 300, or Group B, M, R or S occupancies.
6. The building below the *horizontal assembly* shall be protected throughout by an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, and shall be permitted to be any of the following occupancies:
   6.1. Group S-2 parking garage used for the parking and storage of private motor vehicles;
   6.2. Multiple Group A, each with an *occupant load* of less than 300;
   6.3. Group B;
   6.4. Group M;
   6.5. Group R; and
   6.6. Uses incidental to the operation of the building (including entry lobbies, mechanical rooms, storage areas and similar uses).

7. The maximum *building height* in feet shall not exceed the limits set forth in Section 503 for the building having the smaller allowable height as measured from the *grade plane*.

Reason: To provide clarification and remain consistent with model code language of exception.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MARET-G1-509.2

G133–09/10
509.9

Proponent: Marshall Klein PE, Marshall A. Klein & Associates Inc.

Revise as follows:

509.9 Multiple buildings above ~~Group S-2 parking garage~~ a horizontal assembly. Where two or more buildings are provided above the horizontal assembly separating a Group S-2 ~~open or closed~~ parking ~~-~~garage or building below from the buildings above in accordance with the special provisions in Sections 509.2, 509.3 or 509.8, the buildings above the horizontal assembly shall be regarded as separate and distinct buildings from each other and shall comply with all other provisions of this code as applicable to each separate and distinct building.

Reason: Code proposal is strictly editorial with no intent to change the requirements under the Code.

Revision of the title to Section 509.9 is editorial to correlate with Sections 509.2 and 509.3 to which this section references because Sections 509.2 permit other occupancies (See Section 509.2(6) for listing of other occupancies) below the horizontal assembly.

The addition of the words "or building below" to the body of this section is editorial to correlate with Section 509.2 that lists under its Section 509.2(6) other occupancies besides a S-2 parking garage that are permitted below the horizontal assembly.

The deletion of "open or enclosed" is editorial because a parking garage under Sections 509.2 can be either opened or enclosed, and Section 509.3 spells out that its requirement is applicable to an enclosed garage under an open parking garage. Therefore, "open or enclosed" are not required in Section 509.9 because the referenced code sections provide the parking garage's open or enclosed criteria.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KLEIN-G2-509.9

G134–09/10
Table 601

Proponent: Jeff Hugo, CBO, National Fire Sprinkler Association

Revise table as follows:

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A[d]	B	A[d]	B	HT	A[d]	B
Primary structural frame[g] (see Section 202)	3[a]	2[a]	1	0	1	0	HT	1	0
Bearing walls									
Exterior[f, g,]	3	2	1	0	2	2	2	1	0
Interior	3[a]	2[a]	1	0	1	0	1/HT	1	0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior[e]	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor construction and secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and secondary members (see Section 202)	1½[b]	1[b, c]	1[b, c]	0[c]	1[b, c]	0	HT	1[b, c]	0

For SI: 1 foot = 304.8 mm.

a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
b. Except in Groups F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.
d. ~~An approved automatic sprinkler system in accordance with Section 903.3.1.1 shall be allowed to be substituted for 1-hour fire-resistance-rated construction, provided such system is not otherwise required by other provisions of the code or used for an allowable area increase in accordance with Section 506.3 or an allowable height increase in accordance with Section 504.2. The 1-hour substitution for the fire resistance of exterior walls shall not be permitted.~~ An approved automatic sprinkler system in accordance with Section 903.3.1.1 shall be allowed to be substituted for 1-hour fire resistive construction of all one and two story buildings. The 1-hour substitution for the fire resistance of exterior walls shall not be permitted.
e. Not less than the fire-resistance rating required by other sections of this code.
f. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
g. Not less than the fire-resistance rating as referenced in Section 704.10

Reason: Footnote d is contradictory to the ability to enlarge buildings by height and area with fire sprinklers and no fire statistics show that the requirements of this subsection to be beneficial to the structure, the firefighter's approach to the fire, and is cooled by the fire sprinklers regardless. This change is limited to one and two story buildings.

One and two story unlimited area buildings are subjected to the proposed eliminated portion of footnote d., " *provided such system is not otherwise required by other provisions of the code".* Fire sprinklers are very effective in controlling fires in such buildings.

Footnote c. will still apply to roof construction, including supporting beams and joists less than 20 feet, which was applicable even in the legacy codes.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HUGO-G1-TABLE 601.doc

G135–09/10
Table 601

Proponent: Catherine Heeb, City of Portland Bureau of Development Services

Revise table as follows:

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A[d]	B	A[d]	B	HT	A[d]	B
Primary structural frame[g] (see Section 202)	3[a]	2[a]	1	0	1[h]	0[h]	HT	1	0
Bearing walls									
Exterior[f, g]	3	2	1	0	2	2	2	1	0
Interior	3[a]	2[a]	1	0	1	0	1/HT	1	0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior[e]	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor construction and secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and secondary members (see Section 202)	1½[b]	1[b, c]	1[b, c]	0 c	1[b, c]	0	HT	1[b, c]	0

For SI: 1 foot = 304.8 mm.

a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
b. Except in Groups F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above

any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.

c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

d. An approved automatic sprinkler system in accordance with Section 903.3.1.1 shall be allowed to be substituted for 1-hour fire-resistance-rated construction, provided such system is not otherwise required by other provisions of the code or used for an allowable area increase in accordance with Section 506.3 or an allowable height increase in accordance with Section 504.2. The 1-hour substitution for the fire resistance of exterior walls shall not be permitted.

e. Not less than the fire-resistance rating required by other sections of this code.

f. Not less than the fire-resistance rating based on fire separation distance (see Table 602).

g. Not less than the fire-resistance rating as referenced in Section 704.10

h. Where the exterior wall is not load bearing, the primary structural frame members that form the outermost perimeter bearing frame shall be protected as for exterior bearing walls.

Reason: The purpose of this added footnote is to clarify construction requirements in buildings of Type III construction that do not utilize bearing exterior walls. Traditionally, Type III buildings have been constructed with interior wood structure protected by exterior masonry bearing walls.

The current code language does not sufficiently address protection of exposed structural frame members in Type III construction where there is no exterior bearing wall, such as in curtain wall construction. This amendment would require protection of the outer perimeter of the structural frame in situations where this frame is not engaged in, or protected by, an exterior rated wall.

Protection of the outermost structural frame members provides an equivalent level of protection as construction that utilizes a rated exterior bearing wall.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HEEB-G1-T601

G136–09/10
Table 601

Proponent: Mike Ennis, Single Ply Roofing Industry (SPRI), representing the Single Ply Roofing Industry (SPRI)

Revise table as follows:

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A[d]	B	A[d]	B	HT	A[d]	B
Primary structural frame[g] (see Section 202)	3[a]	2[a]	1	0	1	0	HT	1	0
Bearing walls									
Exterior[f, g]	3	2	1	0		2	2	1	0
Interior	3[a]	2[a]	1	0	1	0	1/HT	1	0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior[e]	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor construction and secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and secondary members[h] (see Section 202)	1½[b]	1[b, c]	1[b, c]	0 c	1[b, c]	0	HT	1[b, c]	0

For SI: 1 foot = 304.8 mm.

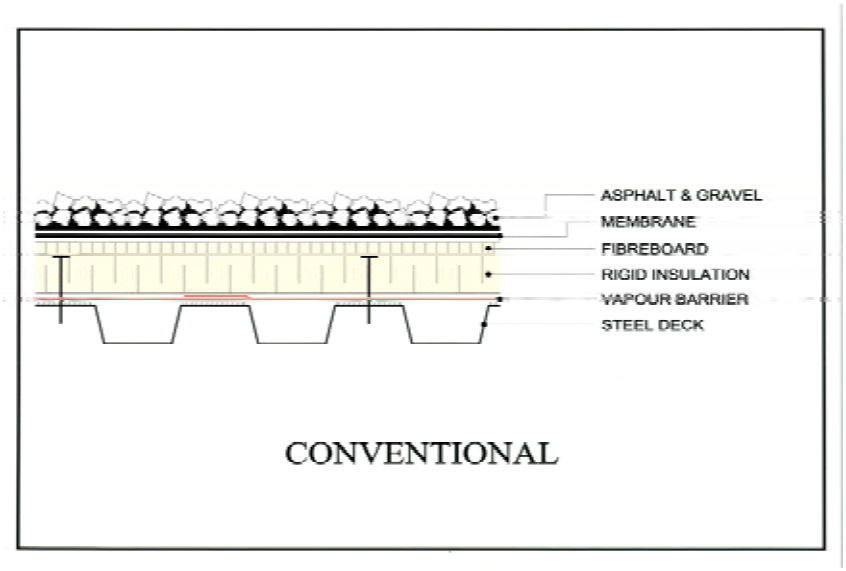
a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.

b. Except in Groups F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.

c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

d. An approved automatic sprinkler system in accordance with Section 903.3.1.1 shall be allowed to be substituted for 1-hour fire-resistance-rated construction, provided such system is not otherwise required by other provisions of the code or used for an allowable area increase in accordance with Section 506.3 or an allowable height increase in accordance with Section 504.2. The 1-hour substitution for the fire resistance of exterior walls shall not be permitted.
e. Not less than the fire-resistance rating required by other sections of this code.
f. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
g. Not less than the fire-resistance rating as referenced in Section 704.10
h. The requirements of this table for roof construction are not applicable to above deck components. For construction Types I and II, the materials used in above deck components shall meet the requirements of Section 603.1.

Reason: Table 601 contains footnote b which states, "Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members." This footnote is referenced for all Types (I through V) of roof construction where a rated assembly is required. In many cases this footnote is being interpreted as meaning that fire-retardant-treated wood is required whenever wood is used in a roof assembly that requires an hourly rating.
A typical roofing assembly contains the components shown below:



The roof deck is typically steel, concrete or wood. On top of the roof deck is a layer of insulation, in may cases a coverboard and them a waterproofing system. The waterproofing system may be a asphalt/gravel system as shown above, a single ply roof membrane, or for steeper slope applications shingles or tile. The current footnote b references structural members, components installed above the roof deck are not structural, they are supported by the structure.

Insulation suppliers to the roofing industry manufacture a nailable insulation product (see included Atlas Nailbase Datasheet). This product consists of foam plastic insulation with a layer of wood (OSB, Plywood, or fire-retardant-treated wood) laminated to it, thus combining two of the components shown above (insulation and fiberboard) into one product This product is installed on top of the roof deck and is used as the nailable substrate for various roofing materials such as shingles, shakes and tile.

In many instances designers feel that footnote b of Table 601 requires that fire-retardant-treated wood be used as the nailable component of this product when a rated assembly is required. While this product can be made with fire-retardant-treated wood as the nailable component this unnecessarily increases the cost of construction.

The proposed footnote h would provide clarifying language while maintaining important fire safety requirements. For example, this footnote is no way removes the hourly rating requirements of the roof assembly. Hourly ratings can be achieved with OSB as the nailable substrate on this product. It also retains the requirement that the product meet the requirements of Section 603 COMBUSTIBLE MATERIALS IN TYPE I AND II CONSTRUCTION.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ENNIS-G1-Table 601

G137–09/10
Table 602

Proponent: Homer Maiel, PE, CBO, City of San Jose**,** representing ICC Tri-Chapter (Peninsula, East Bay, Monterey Bay)

Revise table as follows:

TABLE 602
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE[a,e,i]

FIRE SEPARATION DISTANCE = x (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H[f]	OCCUPANCY GROUP F-1,M, S-1[g]	OCCUPANCY GROUP A, B, E, F-2, I, R[h], S-2[g], U[b,h]
X < 5[c]	All	3	2	1
5 ≤ X < 10	IA	3	2	1
	Others	2	1	1
10 ≤ X < 30	IA, IB,	2	1	1[d]
	IIB, VB	1	0	0
	Others	1	1	1[d]
X ≥ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.

a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
b. For special requirements for Group U occupancies see Section 406.1.2
c. See Section 705.1.1 for party walls.
d. Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
e. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
f. For special requirements for Group H Occupancies, see Section 415.3.
g. For special requirements for Group S Occupancies, see Section 412.4.1.
h. Group R-3, and Group U when used as accessory to Group R-3, shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet or more.
i. When work is exempt from a permit as listed in Section 105.2, Item1, there are no requirements for wall and opening protection based on location on property.

Reason: Footnote h: The addition of this footnote is necessary to be consistent with footnote "f" in Table 705.8 and Section 406.1.2 Item #2. In accordance with Table 705.8, when an R-3 occupancy has a fire separation distance of 5 feet or greater, unprotected openings are unlimited. Consequently if the entire exterior wall area can consist of unprotected windows, the current Table 602 requirement for one hour exterior walls at 5 feet or greater should be exempted for an R-3 occupancy. Similarly in Section 406.1.2 Item #2, the exterior wall of a Group U occupancy used for storage of pleasure-type motor vehicles is not required to have a fire-resistance rating when the fire separation distance is 5 feet or more. Therefore to be consistent, a Group U structure accessory to Group R-3 should also be granted this allowance in Table 602.

Footnote i: The beginning of Section 105.2 states" Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction." Addition of this footnote assures that small detached accessories such as tool sheds which are not over 120 square feet and are exempt from permit requirements do not become subject to requirements of Table 602.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MAIEL-G1-TABLE 602

G138–09/10
Table 602

Proponent: Joe Holland or Dave Bueche, Hoover Treated Wood Products

Revise table as follows:

TABLE 602
FIRE-RESISTANCE RATING REQUIREMENTS FOR ECTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE[a, e]

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H[f]	OCCUPANCY GROUP F-1, M S-1[g]	OCCUPANCY GROUP A, B, E, F-2, I, R, S-2[g], U[b]
X < 5[c]	All	3	2	1
5 ≤ X <10	IA	3	2	1
	Others	2	1	1
10 ≤ X 30	IA, IB	2	1	1[c]
	IIB, IIIB, VB	1	0	0
	Others	1	1	1[c]
X ≤ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.

a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
b. For special requirements for Group U occupancies, see Section 406.1.2.
c. See Section 706.1.1 for party walls.
d. Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
e. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
f. For special requirements for Group H occupancies, see Section 415.3.
g. For special requirements for Group S aircraft hangars, see Section 412.4.1.

Reason: The exterior wall fire resistance required in Table 601 is greater for Type IIIB than what is required for either Type IIB or VB. The interior fire resistance in Type IIIB construction is equivalent to Type IIB and Type VB and therefore should be allowed in the same category.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOLLAND-BUECHE-G6-T602.doc

G139–09/10
602.3

Proponent: Katherine Bang, representing self.

Revise as follows:

602.3 Type III. Type III construction is that type of construction in which the exterior walls are of solid, noncombustible materials and the interior building elements are of any material permitted by this code. ~~*Fire-retardant-treated wood* framing complying with Section 2303.2 shall be permitted within *exterior wall* assemblies of a 2-hour rating or less.~~

Exception: Ungrouted cells, fully enclosed within masonry construction, are permitted.

Reason: Type III construction was common in the past and referred almost exclusively to brick buildings. In recent years the brick has been replaced by concrete or CMU materials. In some parts of the country, the past building codes did not allow framed exterior wall construction for this type of building construction.

Table 503 allows significantly more floor area and height if a building is Type III construction. For instance, an apartment building can be 2 stories higher and 9000 SF larger if it is Type III-B construction in lieu of Type V-B construction.

The jurisdiction I work in has seen a large increase in Type III construction, but the exterior walls of these buildings are framed construction instead of concrete or CMU. The fire retardant diminishes the structural capacity of the wood and so there have been many appeals to not treat the wood. These appeal requests are routinely granted with only minimal additions to provide equivalent life safety.

The framed exterior walls have significant detailing problems at the intersection of the horizontal assemblies and the exterior walls. It is hard to maintain the fire rating of the exterior bearing wall with platform framing. Framed exterior walls should be categorized as Type II or Type V construction. This code change proposal is an effort to return to the original type of construction that was intended as Type III construction.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BANG-G1-602.3.DOC

G140–09/10
602.3, 602.4

Proponent: Jason Thompson, National Concrete Masonry Association (NCMA), representing Masonry Alliance for Codes and Standards (MACS)

Revise as follows:

602.3 Type III. Type III construction is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of any material permitted by this code. Fire-retardant-treated wood framing complying with Section 2303.2 shall be permitted within exterior wall assemblies ~~of~~ having not greater than a 2-hour fire-resistance rating ~~or less~~ where the exposed outer and inner faces of such walls are of noncombustible materials.

602.4 Type IV. Type IV construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid or laminated wood without concealed spaces. The details of Type IV construction shall comply with the provisions of this section. Fire-retardant-treated wood framing complying with Section 2303.2 shall be permitted within exterior wall assemblies ~~with~~ having not greater than a 2-hour fire-resistance rating ~~or less~~ where the exposed outer and inner faces of such walls are of noncombustible materials.

Reason: This code change adds to the provision for exterior walls using fire-retardant-treated wood framing in buildings of Types III and IV construction by requiring that the framing be covered on the outer and inner faces with noncombustible materials. This additional provision when fire-retardant-treated wood is used in exterior walls otherwise required to be constructed of noncombustible materials is taken from the 1997 ICBO Uniform Building Code (UBC) Section 503.4.3 Fire-Retardant-Treated Wood Framing. That section was the source for the justification in the IBC to allow fire-retardant-treated wood in these exterior wall assemblies where the fire-resistance rating did not exceed 2-hours.

A significant number of Type III construction buildings have taken advantage of this provision to allow the exterior wall to be framed of wood rather than constructed entirely of noncombustible materials, while also taking advantage of Section 1406.2.2. Section 1406.2.2 allows combustible exterior wall coverings to be installed on the exterior faces of these walls. That application does not meet the code intent for limiting the combustible materials in the exterior walls of Type III construction which is a basic fire safety component of that type of construction. Since the legacy code provision was used to justify the use of fire-retardant-treated wood, then the other requirements applicable thereto in that legacy code should also be incorporated into the IBC to achieve the intended level of fire safety.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THOMPSON-G5-602.3

G141–09/10
603.1

Proponent: Katherine Bang representing the City of Portland, Bureau of Development Services

Revise as follows:

603.1 Allowable Materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. Fire retardant wood shall be permitted in:
   - 1.1. Nonbearing partitions where the required fire-resistive reating is 2 hours or less.
   - 1.2. Nonbearing exterior walls where no fire rating is required.
   - 1.3. Exterior walls required to be fire-resistance rated where fire blocking is used in concealed spaces occurring at the intersection of the exterior wall and each floor and roof assembly.
   - 1.4. Roof construction, including girders, trusses, framing and decking.

Exception. In buildings of Type IA construction exceeding two stories above grade plane, fire-retardant-treated wood is not permitted in roof construction when the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

2. through 25. (No change to current text)

Reason: This revision eliminates a conflict in the model code that is created by another proposed revision to Section 705.5. This revision is necessary if the other revision is to be adopted since the model building code does not allow combustible blocking in fire-resistive exterior walls of non-combustible construction.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: For the first 2 printings of the 2009 IBC, Item 1 of Section 603.1 was shown as Item 25.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BANG-G2-603.1.DOC

G142–09/10
Table 601, 603.1

Proponent: Joe Holland or Dave Bueche, Hoover Treated Wood Products

Revise as follows:

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:

1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
1.2. Nonbearing *exterior walls* where no fire rating is required.
1.3. Roof construction, including girders, trusses, framing and decking.
1.4. Floor construction where the required *fire-resistance rating* is 1-hour or less including girders, trusses, framing and sheathing.

Exception: In buildings of Type IA construction exceeding two stories above grade plane, fire-retardant-treated wood is not permitted in roof construction when the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

2. through 25. (No change to current text)

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A[d]	B	A[d]	B	HT	A[d]	B
Floor construction and secondary members (see Section 202)	2	2	1[c]	0[c]	1[c]	0	HT	1[c]	0
Roof construction and secondary members (see Section 202)	1 ½ [b]	1 [b,c]	1 [b,c]	0[c]	1 [b,c]	0	HT	1 [b,c]	0

c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

(Portions of table and notes not shown remain unchanged)

Reason: Whether a material is combustible or noncombustible should be a secondary consideration in building construction. Of primary importance is how it will behave structurally and how it will perform in a fire. In some instances, the code currently requires noncombustible materials. The code requires the material be protected or no protection. Although FRTW and heavy timber are combustible materials they offer protection against fire: FRTW because it has been pressure treated to modify how it responds to fire. Both noncombustible materials and FRTW reduce fire spread. Heavy timber offers protection because of the required minimum sizes. In an exposed unprotected fire scenario wood can actually remain in place supporting design loads longer than some noncombustible materials.

In rated construction, both noncombustible materials and combustibles are tested using the same ASTM Standard, E119. A fire rating is not material specific. Therefore, the expectation is whether noncombustible or fire-retardant-treated wood, protected or unprotected, the response of the assembly to fire is equivalent

Cost Impact: The code change proposal will not increase the cost of construction.

Staff Note: In the first 2 editions of the 2009 IBC, Item 1 of Section 603.1 was shown as Item 25.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOLLAND-BUECHE-G5-603.1-2

G143–09/10
603.1

Proponent: Joe Holland and Dave Bueche, Hoover Treated Wood Products

Revise as follows:

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. Fire-retardant-treated wood shall be permitted in:
   1.1. Nonbearing partitions where the required fire-resistance rating is 2 hours or less.
   1.2. Nonbearing exterior walls where no fire rating is required.
   1.3. Roof construction, including girders, trusses, framing and decking.
   <u>1.4. Blocking such as for handrails, millwork, cabinets and window and door frames.</u>

   Exception: In buildings of Type IA construction exceeding two stories above grade plane, fire-retardant-treated wood is not permitted in roof construction when the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

2. through 13. (No change to current text)
~~14. Blocking such as for handrails, millwork, cabinets and window and door frames.~~
15. through 25. (No change to current text)

Reason: The primary members of partitions in Type I and Type II construction must be noncombustible or fire-retardant-treated wood. To allow untreated wood in the partitions for blocking is inconsistent with Type I and Type II construction. In some cases it can be flush mounted exposed with the wallboard behind cabinets or millwork. It certainly is not prudent. Two of the three legacy codes did not allow.

Cost Impact: The code change proposal will increase the cost of construction.

Staff Note: In the first 2 editions of the 2009 IBC, Item 1 of Section 603.1 was shown as Item 25.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOLLAND-BUECHE-G4-603.1

G144–09/10
1202, 1203.2.2 (New)

Proponent: Joseph Lstiburek, Building Science Corporation, representing self

Add new text as follows:

1202.1 General. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

<u>**AIR-IMPERMEABLE INSULATION**. An insulation having an air permeance equal to or less than 0.02 l/s-m^2 at 75 pa pressure differential tested according to ASTM E 2178 or E 283.</u>

<u>**1203.2.2 Unvented attic and unvented enclosed rafter assemblies.** Unvented attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) and unvented enclosed rafter assemblies (spaces between ceilings that are applied directly to the underside of roof framing members/rafters and the structural roof sheathing at the top of the roof framing members/rafters) shall be permitted where all of the following are met:</u>

1. The unvented attic space is completely within the building thermal barrier.
2. No interior Class I vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly or on the ceiling side of the unvented enclosed rafter assembly.
3. Where wood shingles or shakes are used, a minimum 1/4 inch (6 mm) vented air space separates the shingles or shakes and the roofing underlayment above the structural sheathing.
4. In climate zones 5, 6, 7 and 8 as specified in the *International Energy Conservation Code*, any air-impermeable insulation shall be a Class II vapor retarder, or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.
5. Either items 5.1, 5.2 or 5.3 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.
   - 5.1. Air-impermeable insulation only. Insulation shall be applied in direct contact with the underside of the structural roof sheathing.
   - 5.2. Air-permeable insulation only. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing as specified in Table 1203.2.2 for condensation control.
   - 5.3. Air-impermeable and air-permeable insulation. The air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing as specified in Table 1203.2.2 for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.
6. Where preformed insulation board is used as the air-impermeable insulation layer, it shall be sealed with tape, caulking, foam sealant or equivalent material at the inner most perimeter of each individual sheet interior surface to form a continuous layer.
7. This section does not apply in climate zones 5 or higher for special use structures or enclosures such as swimming pool enclosures, data processing centers, hospitals, or art galleries, where the structure or enclosure is humidified beyond 35 percent during the three coldest months.

TABLE 1203.2.2
INSULATION FOR CONDENSATION CONTROL

CLIMATE ZONE	MINIMUM RIGID BOARD ON AIR-IMPERMEABLE INSULATION R-VALUE[a, b]
2B and 3B - tile roof only	0 (none required)
1, 2A, 2B, 3A, 3B, 3C	R-5
4C	R-10
4A, 4B	R-15
5	R-20
6	R-25
7	R-30
8	R-35

a. Contributes to, but does not supersede, thermal resistance requirements for attic and roof assemblies.
b. Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45 degrees F (7 degrees C). For calculation purposes, an interior air temperature of 68 degrees F (20 degrees C) is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.

Reason: Unvented roof assemblies - both attic and cathedral ceiling - are a proven technology. They give the designer significant flexibility in locating mechanical equipment and ductwork inside of conditioned spaces thereby saving energy. They significantly improve the air tightness of the building enclosure thereby saving energy. They reduce wind uplift forces and reduce the risk of wildfire damage. They eliminate the problems associated with wind driven rain entering roof vents during hurricanes. The language in this proposed section is modeled on the existing language in the IRC Section 806.4.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: LSTIBUREK-G1-1202 DEFINITION-Revised

G145–09/10
1203.2; IRC R806.2

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

Proponent: Lee Kranz representing Washington Association of Building Officials (WABO), Technical Code Development Committee

PART I – IBC GENERAL

Revise as follows:

1203.2 Attic Spaces. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. A minimum of 1 inch of airspace shall be provided between the insulation and the roof sheathing. The net free ventilating area shall not be less than ~~1/300th~~ 1/150th of the area of the space ventilated.

Exceptions:

1. The net free cross-ventilation area shall be permitted to be reduced to 1/300 provided that ~~with~~ at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents.
2. The net free cross-ventilation area shall be permitted to be reduced to 1/300 when Class I or II vapor barrier is installed on the warm-in-winter side of the ceiling.

PART II – IRC BUILDING/ENERGY

Revise as follows:

R806.2 Minimum area. The total net free ventilating area shall not be less than $^{1}/_{150}$ of the area of the space ventilated. ~~except that reduction of the total area~~

Exceptions:

1. The net free-cross ventilation area shall be permitted to be reduced to $^{1}/_{300}$ ~~is permitted~~ provided that at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents.
2. ~~As an alternative,~~ The net free cross-ventilation area ~~may~~ shall be permitted to be reduced to $^{1}/_{300}$ when a Class I or II vapor barrier is installed on the warm-in-winter side of the ceiling.

Reason: IBC 1203.2. Current attic ventilation provisions do not address ventilation of low slopped or flat roof attics. It is appropriate to require more ventilation area (i.e. 1/150th) when 3' of vertical separation between the upper and lower vent areas is not possible. A reduction of required vent area (i.e. 1/300th) is appropriate when vertical separation of the vents is provided as natural convection provides additional air movement within the attic space. It is also appropriate to reduce the vent area when a vapor barrier is installed on the ceiling to reduce moisture transmission from the occupied space into the attic. This change also creates consistency with Section 806.2 of the 2009 IRC.

IRC R806.2. The current language found in IRC Section 806.2 includes two exceptions within the charging text. The proposal reformats the section to be consistent with the typical grammatical format found elsewhere in the codes. The change creates consistency with Section 1203.2 of the IBC.

Cost Impact: The code change proposal will increase the cost of construction.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC BUILDING/ENERGY

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KRANZ-G2-1203.2

G146–09/10
1203.2; IRC R806.1

Proponent: Ali M. Fattah, City of San Diego, San Diego Area Chapter ICC Code Committee

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC GENERAL

Revise as follows:

1203.2 Attic spaces. Where determined necessary by the building official due to atmospheric or climatic conditions, ~~Enclosed~~ enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. A minimum of 1 inch (25 mm) of airspace shall be provided between the insulation and the roof sheathing. The net free ventilating area shall not be less than 1/300 of the area of the space ventilated, with 50 percent of the required ventilating area provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents.

PART II – IRC BUILDING AND ENERGY

Revise as follows:

R806.1 Ventilation required. Where determined necessary by the building official due to atmospheric or climatic conditions, ~~Enclosed~~ enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of $^{1}/_{16}$ inch (1.6 mm) minimum and ¼ inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than ¼ inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, or similar material with openings having a least dimension of $^{1}/_{16}$ inch (1.6 mm) minimum and ¼ inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7.

Reason: The proposed code change deletes a current requirement. There are many conditions that can preclude providing attic ventilation where climactic conditions do not warrant attic ventilation, for example the installation of solar photovoltaics. Additionally, it is very impractical or not possible to ventilate occupied roof decks, low slope (flat) roofs or vaulted ceilings using rafters with drywall attached to directly to the underside of the solid combination rafter-ceiling joist. In many cases it is not possible to provide the 3 ft elevation difference between the high and low vents on low slope roofs and where low slope roofs include parapets and therefore no eave vents. The proposed change will not preclude applicants from providing attic ventilation to satisfy manufacturer's installation instructions for roof covering and therefore preserving the roof warranty. The language existed in the Uniform Building Code (Section 1505.3). That legacy building code was enforced in climates ranging from cold winter regions to hot desert regions in the southwest and had been in effect for more than 20 years. We are not aware of any moisture damage issues in attic spaces within jurisdictions that did not require attic ventilation, for example the City of San Diego and many surrounding jurisdictions.

This section can conflict with required one hour protection for projections such at eaves, as well as eave protection required by the International Wildland Urban interface Code.

Cost Impact: The code change proposal will not increase the cost of construction.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC BUILDING AND ENERGY

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FATTAH-G2.doc

G147–09/10
1207.1, 1207.4 (New); IRC AK101.1, AK 104 (New)

Proponent: Louis Mraw, State of New Jersey, Department of Community Affairs

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC GENERAL

1. Revise as follows:

1207.1 Scope. This section shall apply to common interior walls, partitions and floor/ceiling assemblies between adjacent *dwelling units* or between *dwelling units* and adjacent public areas such as halls, *corridors*, *stairs* or service areas. Windows, doors, walls and roof/ceiling assemblies within buildings containing dwelling units that are exposed to aircraft noise shall provide air-borne sound insulation in accordance with Section 1207.4.

2. Add new section as follows:

1207.4 Aviation noise-resistant construction. Buildings subject to aircraft noise shall be constructed to provide noise level reduction according to the following:

1. Buildings exposed to a day-night average sound level of at least 65 dB but less than 70 dB shall be constructed to provide a 25 dB noise level reduction.
2. Buildings exposed to a day-night average sound level of at least 70 db but less than 75 dB shall be constructed to provide a 30 dB noise level reduction.
3. Buildings exposed to a day-night average sound level of at least 75 dB shall be constructed to provide a 35 dB noise level reduction.

PART II – IRC BUILDING/ENERGY

1. Revise as follows:

AK101.1 Scope. This section shall apply to common interior walls, partitions and floor/ceiling assemblies between adjacent *dwelling units* or between *dwelling units* and adjacent public areas such as halls, *corridors*, *stairs* or service areas. Windows, doors, walls and roof ceiling assemblies within buildings containing dwelling units that are exposed to aircraft noise shall provide air-borne sound insulation in accordance with Section AK 104.1.

2. Add new section as follows:

SECTION AK104
AVIATION NOISE-RESISTANT CONSTRUCTION

AK104.1 Aviation noise-resistant construction. Buildings subject to aircraft noise shall be constructed to provide noise level reduction according to the following:

1. Buildings exposed to a day-night average sound level of at least 65 dB but less than 70 dB shall be constructed to provide a 25 dB noise level reduction.
2. Buildings exposed to a day-night average sound level of at least 70 db but less than 75 dB shall be constructed to provide a 30 dB noise level reduction.
3. Buildings exposed to a day-night average sound level of at least 75 dB shall be constructed to provide a 35 dB noise level reduction.

Reason: The U.S. Department of Navy and the United State Air Force have established land use compatibility standards for exposure to aviation noise. Noise levels in these areas are expressed in terms of "Day-Night Average Sound Level", which is abbreviated by "DNL". DNL is the average measure of all aircraft flights occurring in a 24-hour period. The land use compatibility standards state that residential uses are discouraged in 65-69 dB DNL zones and strongly discouraged in 70-74 dB DNL zones. This proposed code change establishes Noise Level Reduction (NLR) criteria for homes exposed to this type of aviation noise.

Typically, noise level reduction has been based on a single-number rating system (STC ratings), however, the use of STC ratings is inappropriate for transportation noises such as aircraft as stated in ASTM E413 section 4.1. It is for this reason we have chosen to provide this performance based criteria.

Cost Impact: The code change proposal will not increase the cost of construction. The proposed code change will increase the cost of construction in area located in the vicinity of airports and military installations.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC BUILDING/ENERGY

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MRAW-G1-1207.4

G148–09/10
1208.3

Proponent: Maureen Traxler, City of Seattle, WA, representing Washington Association of Building Officials Technical Code Development Committee

Revise as follows:

1208.3 Room area. Every dwelling unit shall have at least one room that shall have not less than 120 square feet (13.9 m^2) of net floor area. Other habitable rooms shall have a net floor area of not less than 70 square feet (6.5 m^2).

Exception: ~~Every kitchen~~ Kitchens in ~~a~~ one-and two-family ~~dwelling~~ dwellings ~~shall have not less than 50 square feet (4.64 m^2) of gross floor area~~.

Reason: Minimum room size is an amenity that, especially for kitchens, is not related to life safety or health. This proposal coordinates the IBC and IRC provisions for the minimum size of kitchens. While the IBC requires kitchens to be at least 50 square feet, the IRC has no minimum size. IRC Section R304.2 states:

"Other habitable rooms shall have a floor area of not less than 70 square feet (6.5 m2).
Exception: Kitchens."

IBC Section 1208.1 provides minimum maneuvering room in kitchens. It requires kitchens to have at least 3 feet of space between counter and appliances, and between counter fronts and walls.

Cost Impact: The code change proposal will not increase the cost of construction

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: TRAXLER-G2-1208.3

G149–09/10
1210.2

Proponent: Bruce D. Dimmig, representing the Arizona Building Officials

Revise as follows:

1210.2 Walls. Walls within 2 feet (610 mm) of service sinks, urinals and water closets shall have a smooth, hard, nonabsorbent surface, to a height of 4 feet (1219 mm) above the floor and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.

Exceptions:

1. *Dwelling units* and *sleeping units*.
2. Toilet rooms that are not accessible to the public and which have not more than one water closet.

Accessories such as grab bars, towel bars, paper dispensers and soap dishes, provided on or within walls, shall be installed and sealed to protect structural elements from moisture. For walls and partitions also see Section 2903.

Reason: The areas around service sinks are as susceptible to moisture as the urinals and water closets as splattering of water and other liquids is common place. Also, with the use of cleaning chemicals and other items that can and will be used at the service sinks makes the walls as subject to the effects experienced at the urinals and water closets.

Cost Impact: The code change proposal will have a minimal effect on the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: DIMMIG-G1-1210.2

G150–09/10
1210.1.1 (New)

Proponent: Timothy Kyle Hantz, PE, General Services Administration, representing self

Add new text as follows:

1210.1.1 Diaper changing station. In assembly occupancies where a toilet room has two or more water closets, a diaper changing station shall be provided in the toilet room. Diaper changing stations shall comply with the work surface requirements of ICC A117.1.

Reason: IBC 101. 3 states that the intent of the code is to provide minimum standards for public health, safety and general welfare. I have noticed diaper changing stations in restaurants, trains, airports, convention centers, etc. It is hard to believe that in 2009, we still have to change our children's diapers on a toilet room floor. This is very unsanitary for the baby and the changer. This proposal would also help people who have trouble bending over, or getting on their hands and knees to change diapers.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: The Code Correlation Committee approved an editorial combining of Sections 1210 and 2903 of the 2009 IBC into a single section 1210 on Toilet and Bathroom requirements. This proposal, if approved would be located as Section 1210.1.1 of the new combined section.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HANTZ-G1-1211.1.DOC

G151–09/10
2703 (New)

Proponent: John England, MCO, England Enterprises Inc., representing Cities of Beaufort, Hardeeville SC

Add new section as follows:

SECTION 2703
EMERGENCY DISCONNECT OF POWER

2703.1 Emergency disconnect of power. All buildings shall be provided with a means of disconnecting electrical power from the building by emergency personnel without requiring entry into the building. Metering devices and disconnecting means by utility companies are not considered a means of disconnect. The building official or fire code official have the discretion of waiving this requirement with just cause.

2703.2 Emergency and standby power. Emergency and standby power generation systems shall have a means of disconnecting power by emergency personnel without requiring entry into the building.

Reason: Emergency (fire) personal have requested external disconnecting means on building for years.—the building, fire, or electrical code have not required it. Since fighting fires in building with electrical systems on is an ever growing danger to the fire department, they should have the option of cutting the power to the building. This can be done with disconnects or shut trip breakers.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ENGLAND-G6-2703.doc

G152–09/10
3001.2, Chapter 35

Proponent: Victor D. Azzi, PhD, PE, Consulting Engineer, representing the Lift Manufacturers Product Section (LMPS), a division of the Material Handling Industry of America (MHIA)

1. Revise as follows:

3001.2 Referenced standards. Except as otherwise provided for in this code, the design, construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components shall conform to ASME A17.l/CSA B44, ASME A90.l, ASME B20.1, ANSI MH29.1, ALI ALCTV, and ASCE 24 for construction in flood hazard areas established in Section 1612.3.

2. Add standard to Chapter 35 as follows:

ANSI
MH29.1-2003 Safety Requirements for Industrial Scissors Lifts

Reason: The proposed addition to Section 3001 is intended to add industrial scissors lifts, a common and industry-wide accepted vertical conveyance used in buildings since the early 1950's. This addition will help avoid the possibility of confusion by using the appropriate standard to define these types of lifting devises.

As one example of the confusion that currently exists, the Minnesota State Building Code follows the 2006 IBC A City of Minneapolis building inspector in March 2008 was inspecting a new installation of a scissor- type dock lift. The only referenced standard in IBC Chapter 30 (Elevators and Conveying Systems) that seemed to be applicable was ASME B20.1, so he applied that standard. The other referenced standards in IBC 3001.2 were elevators (A17.1), belt manlifts (A90.1), and automotive lifts (ALI ALCTV). The inspector rationalized that because the Minnesota state building code does not recognize industrial scissor lifts they are prohibited unless the manufacturer could show that they meet the intended safety requirements of the code he chose for the conveyance. The IBC is the minimum requirement for safety in that state. In order to gain approval, the manufacturer's scissors lift must meet or exceed the level of safety that was intended for a completely different devise - a conveyor as defined and regulated by ASME B20.1.

ANSI MH29.1 is a stand alone, nationally accepted ANSI standard. It is the only standard that applies to industrial scissors lifts in exactly the same way that ASME H20.I applies to conveyors, AI7.I applies to elevators, A90.I applies to belt manlifts, or ALI ALCTV applies to automotive lifts.


• Scissors lift in 3-sided pit at loading dock # I


• Scissors lift in 3-sided pit at loading dock # 2


• Scissors lift in front of loading dock


• Two scissors lifts at a loading dock

Cost Impact: This addition to the code will not increase the cost of construction

Analysis: A review of the standard proposed for inclusion in the code, ANSI-MH29.1, for compliance with ICC criteria for referenced standard given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: AZZI-G1-3001.2.doc

G153–09/10
3001.2.1 (New); IFC 607.4 (New); IPMC 606.1

Proponent: Philip M. Chandler representing New York State, Department of State, Office of Fire Prevention & Control.

THIS IS A 3 PART CODE CHANGE. ALL PARTS WILL BE HEARD BY THE IBC GENERAL CODE COMMITTEE AS 3 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THE GENERAL CODE COMMITTEE.

PART I – IBC GENERAL

Add new text as follows:

3001.2 Referenced standards. Except as otherwise provided for in this code, the design, construction, installation, *alteration*, repair and maintenance of elevators and conveying systems and their components shall conform to ASME A17.1/CSA B44, ASME A90.1, ASME B20.1, ALI ALCTV, and ASCE 24 for construction in flood hazard areas established in Section 1612.3.

3001.2.1 Certificate of inspection. The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter, be available for public inspection in the office of the building *operator* or be posted in a publicly conspicuous location *approved* by the *building official*. The inspection and witnessing of tests required by ASME A17.1 shall be performed by an impartial, third-party inspector that meets the minimum qualifications as set forth in the referenced standard. The inspection and tests shall be performed at not less than the periodic intervals listed in ASME A17.1, Appendix N, except where otherwise specified by the authority having jurisdiction.

PART II – IFC

Add new text as follows:

607.4 Maintenance. Elevators, dumbwaiters and escalators shall be maintained in compliance with ASME A17.1. The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter, be available for public inspection in the office of the building *operator* or be posted in a publicly conspicuous location *approved* by the *code official*. The inspection and witnessing of tests required by ASME A17.1 shall be performed by an impartial, third-party inspector that meets the minimum qualifications as set forth in the referenced standard. The inspection and tests shall be performed at not less than the periodic intervals listed in ASME A17.1, Appendix N, except where otherwise specified by the authority having jurisdiction.

PART III – IPMC

Revise as follows:

606.1 General. Elevators, dumbwaiters and escalators shall be maintained in compliance with ASME A17.1. The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter, be available for public inspection in the office of the building *operator* or be posted in a publicly conspicuous location *approved* by the *code official*. The inspection and witnessing of tests required by ASME A17.1 shall be performed by an impartial, third-party inspector that meets the minimum qualifications as set forth in the referenced standard. The inspection and tests shall be performed at not less than the periodic intervals listed in ASME A17.1, Appendix N, except where otherwise specified by the authority having jurisdiction.

Reason: These three companion proposals will provide consistent provisions in the IBC, IFC and IPMC regarding elevator inspection and posting the appropriate certificate.

IBC Section 3001.2: As 3001.2 pertains to maintenance as well as to design, construction and installation, it is appropriate to use the same language found in IPMC here. Additionally, it is helpful to reiterate the qualifications needed by elevator inspectors and the importance of their impartiality.

IFC Section 607.4: Elevators, dumbwaiters and escalators have a significant impact on a building's overall fire safety. Accordingly, this new text will coordinate IFC requirements with those of the IBC and IPMC and at the same time, reiterate the qualifications needed by elevator inspectors and the importance of their impartiality.

IPMC Section 606.1: This eliminates much confusion surrounding the minimum qualifications of elevator inspectors explicit in the referenced standard and the need for impartiality implicit in the requirements for QEI-1certification. The need for impartiality is fundamental to the QEI process.

Cost Impact: The code change proposal will not increase the cost of construction

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IFC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART III – IPMC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CHANDLER-G1-3001.2.1.doc

G154–09/10
3002.3

Proponent: Brian Black, BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII)

Revise as follows:

3002.3 Emergency signs. An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. The sign shall ~~read: IN FIRE EMERGENCY, DO NOT USE ELEVATOR. USE EXIT STAIRS~~ comply with ASME A17.1/CSA B44.

Exceptions:

1. The emergency sign shall not be required for elevators that are part of an *accessible means of egress* complying with Section 1007.4.
2. The emergency sign shall not be required for elevators that are used for occupant self-evacuation in accordance with Section 3008.

Reason: The message for these elevator signs is already addressed in the referenced standard:

ASME A17,1/CSA B44, Section 2.27.9 Elevator Corridor Call Station Pictograph. When the building code requires a sign be posted adjacent to hall call fixtures instructing occupants not to use the elevator in case of fire, the sign shown in Fig. 2.27.9 shall be provided. The sign shall include only the wording and graphics shown in Fig. 2.27.9. When the building code specifies a different design, 2.27.9 shall not apply.

(The Figure 2.27.9 uses the text "IN CASE OF FIRE ELEVATORS ARE OUT OF SERVICE. USE EXIT".)

ASME A17,1/CSA B44 already provides the "standardized design" required by IBC Section 3002.3 but provides non-standardized text to accompany the pictograph. This is essentially a harmonization between the IBC requirement and the code referenced in 3001.2.

Cost Impact: This code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G2-3002.3.doc

G155–09/10
3003.3 (New), 3007.3

Proponent: Dave Frable, U.S. General Services Administration

Revise as follows:

3003. 3 Hoistway lighting. When firefighters' emergency operation is active, the entire height of the hoistway shall be illuminated at not less than 1 foot-candle (11 lux) as measured from the top of the car of each elevator.

~~**3007.3 Hoistway lighting.** When firefighters' emergency operation is active, the entire height of the hoistway shall be illuminated at not less than 1 foot-candle (11 lux) as measured from the top of the car of each fire service access elevator.~~

(Renumber subsequent sections)

Reason: The intent of this code change is to provide illumination within elevator hoistways when firefighter's emergency operation has been enabled. It relocates the provisions currently only applicable to fire service access elevators applicable to high-rise buildings, to be a requirement for all elevator hoistways regardless of height or whether the elevator is designated for a specific use or not.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G3-3003.3

G156–09/10
3003.3 (New)

Proponent: Dave Frable, U.S. General Services Administration

Add new text as follows:

3003.3 Elevator identification. Each elevator shall be individually marked with an approved identification at each elevator landing and elevator control operating panel.

Reason: The intent of this code change is to provide a means for each elevator to be indentified consistently throughout the building.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G5-3003.4

G157–09/10
3007.1. 3007.1.1(New)

Proponent: Brian Black, BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII); Sean DeCrane, representing International Association of Fire Fighters (IAFF); Jack Murphy, representing Fire Safety Directors of Greater New York (FSDAGNY)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3007.1 General. Where required by Section 403.6.1, every floor of the building shall be served by ~~a~~ fire service access ~~elevator~~ elevators. Except as modified in ~~this section, the~~ Sections 3007.1 through 3007.7, fire service access ~~elevator~~ elevators shall be installed in accordance with this chapter and ASME A17.1/CSA B44.

3007.1.1. Ambulance stretcher. Each fire service access elevator shall be sized to accommodate a stretcher in conformance with Section 3002.4.

Reason: A fire service access elevator has to be large enough to accommodate firefighters and their equipment as they ascend to a fire floor and also be large enough to accommodate injured building occupants or persons with disabilities being evacuated from the building. This proposal simply correlates with the existing requirement in Section 3002.4 to provide a 3500+ lb elevator car in buildings four or more stories above/below grade plane that can accommodate a stretcher, ensuring that this car, which may be larger than the other elevators in the building, will also be the fire service access elevator.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G6-3007.1.doc

G158–09/10

3007.2 (New), 3007.3 (New)

Proponent: Dave Frable, U.S. General Services Administration

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3007.2 Automatic sprinkler system. The building shall be equipped throughout by an automatic sprinkler system in accordance with Section 903.3.1.1, except as otherwise permitted by Section 903.3.1.1.1 and as prohibited by Section 3007.2.1.

3007.2.1 Prohibited locations. Automatic sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways of fire service access elevators.

3007.2.2 Sprinkler system monitoring. The sprinkler system shall have a sprinkler control valve supervisory switch and waterflow-initiating device provided for each floor that is monitored by the building's fire alarm system.

3007.3 Shunt trip. Means for elevator shutdown in accordance with Section 3006.5 shall not be installed on elevator systems used for fire service access elevators.

(Renumber subsequent sections)

Reason: 3007.2: The intent of this code change is to provide further clarification in meeting the original intent of Section 3007 regarding prohibiting the installation of automatic sprinklers in the associated elevator machine rooms and elevator machine spaces for fire service access elevators. . The subject proposed language is similar to the language in Section 3008.6 for occupant evacuation elevators.

3007.3: The intent of this code change is to provide further clarification in meeting the original intent of Section 3007 regarding prohibiting the installation of shunt trip for fire service access elevators. The subject proposed language is similar to the language in Section 3008.8 for occupant evacuation elevators.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: Would this requirement take precedence over Sections 403.2 and 903.2.11.3 which allow certain portions of a high-rise building not to be provided with sprinkler protection?

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G9-3007.2

G159–09/10
3007.2 (New)

Proponent: Dave Frable, U.S. General Services Administration

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3007.2 Phase I Emergency recall operation. An independent, three-position, key-operated "Fire Recall" switch shall be provided at the designated level for each fire service access elevator or for each group of fire service access elevators in accordance with the requirements in ASME A17.1/CSA B44. In addition, actuation of any building fire alarm initiating device shall initiate Phase I emergency recall operation on all fire service access elevators in accordance with the requirements in ASME A17.1/CSA B44. All other elevators shall remain in normal service unless Phase I emergency recall operation is manually initiated by a separate, required three-position key-operated "Fire Recall" switch or automatically initiated by the associated elevator lobby and elevator machine room smoke detectors.

(Renumber subsequent sections)

Reason: The intent of this code change is to provide further clarification in meeting the original intent regarding the design and operation of fire service access elevators. This code change will also ensure the subject elevators can be recalled quickly at the designated level by the responding firefighters.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G7-3007.2

G160–09/10
3007.2, 3007.2.1(New)

Proponent: Rick Thornberry, PE, The Code Consortium, Inc., representing: California Fire Safety Advisory Council (CFSAC)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3007.2 Hoistway enclosures protection. The fire service access elevator hoistway shall be located in a shaft enclosure complying with Section 708.

3007.2.1 Structural integrity of hoistway enclosures. The fire service access elevator hoistway shaft enclosure shall comply with Section 403.2.3.

Reason: This proposed code change is a follow up to the Cal Chiefs Code Change G194-07/08 which was disapproved in Minneapolis.

That code change was disapproved mainly because it was based on a reference to the hose stream test in ASTM E119 for determining the structural integrity of the shaft enclosure. However, Code Change G65-07/08 by the Gypsum Association, which also addressed the issue of structural integrity of exit stairway and elevator hoistway shaft enclosures, was approved as modified in Minneapolis by Public Comment #2. That code change provided for another means for assessing the structural integrity of shaft enclosures, specifically for buildings known as super high-rise buildings (those greater than 420 ft in height). And it was supported by a NIST representative in response to one of the recommendations made in the NIST World Trade Center Report. Since it was approved for those conditions, it also seems appropriate that such structural integrity criteria should also be provided for the protection of fire service access elevator hoistways. These hoistways perform a very critical function protecting the responding fire fighters while the elevator assists them in gaining access to the fire floor in buildings generally more than 120 ft in height.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: Does the reference to Section 403.2.3 in the proposal result in requiring 'hardening' of the hoistway shaft at the 120 foot threshold for fire service access elevators or the 420 foot threshold provided in Section 403.2.3?

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THORNBERRY-G3-3007.2

G161–09/10
3007.3 (New)

Proponent: Brian Black, BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII); Sean DeCrane, representing International Association of Fire Fighters (IAFF); Jack Murphy, representing Fire Safety Directors of Greater New York (FSDAGNY)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3007.3 Pressurization system. Hoistways for fire service access elevators and fire service access elevator lobbies required to be enclosed in accordance with 3007.4.2 shall be pressurized in accordance with Section 708.14.2.

(Renumber subsequent sections)

Reason: The Fire Service Access Elevators (FSAE) need to be protected from smoke entering either the hoistway directly or through the lobby or stair system that adjoins the FSAE. The current requirements for a Fire Service Access Elevator include elevator lobbies constructed as smoke barriers; however the Hazard Analysis done by the ASME Task Group on Use of Elevators by Firefighters determined that providing lobbies alone that are not pressurized is insufficient due to the likelihood that the lobby and stairwell doors would be open continuously to permit firefighting operations.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G7-3007.3.doc

G162–09/10
3007.4 (New)

Proponent: Dave Frable, U.S. General Services Administration

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3007.4 Water protection. An *approved* method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the enclosed fire service access elevator lobby shall be provided.

(Renumber subsequent sections)

Reason: The intent of this code change is to provide performance language that will permit alternate design options to provide a means to prevent water from an operating sprinkler system from infiltrating into the hoistway enclosure. For example, such approved means could include: drains, sloping floor, etc. The subject proposed language is similar to the proposed language in Section 3008.10 for occupant evacuation elevators.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G10-3007.4

G163–09/10
3007.4.2

Proponent: Dave Frable, U.S. General Services Administration

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3007.4.2 Lobby enclosure. The fire service access elevator lobby shall be enclosed with a *smoke barrier* having a minimum 1-hour *fire-resistance rating*, except that lobby doorways shall comply with Section 3007.4.3.

> **Exception:** Enclosed fire service access elevator lobbies are not required at the levels of exit discharge ~~street floor~~.

Reason: The intent of this code change is to only replace the undefined term "street floor" with the defined term "level of exit discharge". The subject text is similar to the wording in the requirement in Section 3008.11.2.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G4-3007.4.2

G164–09/10
3007.5.1 (New)

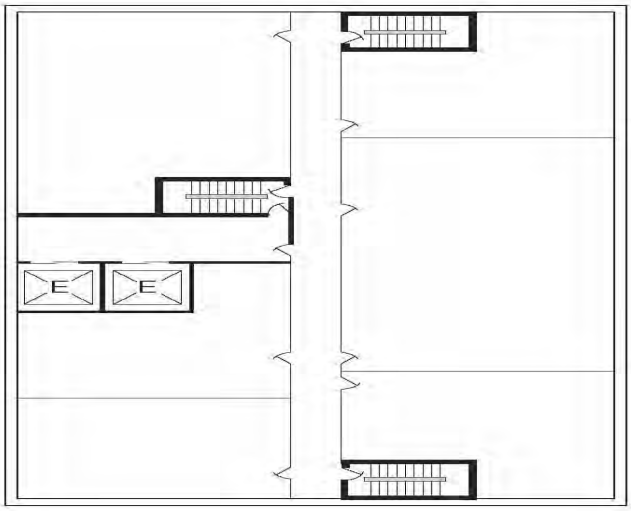
Proponent: Richard Bukowski, PE, FSFPE, Rolf Jensen & Associates, representing self

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3007.5.1 Access. The *exit enclosure* containing the standpipe shall have access to the floor without passing through the fire service access elevator lobby.

Reason: Access from the exit enclosure containing the standpipe to the floor is necessary so that the fire department can advance their attack hose onto the fire floor without opening the door between the lobby and the floor which could permit smoke contamination of the lobby and cause recall of the elevator(s). This access to the floor could be direct or through an access corridor or vestibule between the elevator lobby and the exit enclosure as long as there is a smoke barrier enclosing the elevator lobby.



Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BUKOWSKI-G1-3007.5.1.doc

G165–09/10
3007.7.1, 3008.15.1

Proponent: Brian Black BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII); Sean DeCrane, representing, International Association of Fire Fighters (IAFF); Jack Murphy, representing Fire Safety Directors Association of Greater New York (FSDAGNY)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3007.7.1 Protection of wiring or cables. Wires or cables that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation and fire-detecting systems to fire service access elevators shall be protected by construction having a minimum ~~1~~-2-hour fire-resistance rating or shall be circuit integrity cable having a minimum ~~1~~-2-hour fire resistance rating.

3008.15.1 Protection of wiring or cables. Wires or cables that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation and fire-detecting systems to fire service access elevators shall be protected by construction having a minimum ~~1~~-2-hour fire-resistance rating or shall be circuit integrity cable having a minimum ~~1~~-2-hour fire resistance rating.

Reason: RE: 3007.7.1: The safety of firefighters during their firefighting operations is dependent upon the life safety support systems listed in Section 3007 being maintained during the critical first 2 hours of their efforts. Locating, surrounding, confining and extinguishing the fire, as well as removing those whose lives are in jeopardy, will take time. If the fire is not under control by 2 hours into the effort, then it is probably time to evacuate. Providing the 2 hour protection will provide the necessary safety factor for firefighters to undertake the firefighting and rescue operations without increased concern for system failure. The 2-hour rating is consistent with the hoistway fire rating and fire pump feeder enclosure rating. This request has the full support of the firefighting community and is not unreasonable when it is considered that this will allow for more time to ensure the full evacuation of the building.

RE: 3008.15.1: The safety of building occupants evacuating a building is dependent upon the life safety support systems listed in Section 3008 being maintained during the critical hours of evacuation. The 2-hour rating is consistent with the hoistway fire rating and fire pump feeder enclosure rating. This request has the full support of the firefighting community and is not unreasonable when it is considered that this will allow for more time to ensure the full evacuation of a building.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G8-10-3008.15.1.doc

G166–09/10
3007.7.1, 3008.15.1

Proponent: Brian Black BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII); Sean DeCrane, representing, International Association of Fire Fighters (IAFF); Jack Murphy, representing Fire Safety Directors Association of Greater New York (FSDAGNY)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3007.7.1 Protection of wiring or cables. Wires or cables that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation and fire-detecting systems to fire service access elevators shall be protected by construction having a minimum 1-hour fire-resistance rating or shall be circuit integrity cable having a minimum 1-hour fire resistance rating.

> **Exception:** Wiring and cables to control signals are not required to be protected provided that wiring and cables do not serve Phase II emergency in-car operation.

3008.15.1 Protection of wiring or cables. Wires or cables that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation and fire-detecting systems to fire service access elevators shall be protected by construction having a minimum 1-hour fire-resistance rating or shall be circuit integrity cable having a minimum 1-hour fire resistance rating.

> **Exception:** Wiring and cables to control signals are not required to be protected provided that wiring and cables do not serve Phase II emergency in-car operation.

Reason: The safety of building occupants evacuating a building is dependent upon the life safety support systems listed in Sections 3007 and 3008 being maintained during the critical hours of evacuation. Elevator landing fixtures that provide control signals such as hall call buttons and hall lanterns do not require a 1-hour fire resistance rating to ensure the viability of the system and protection of firefighters using the fire service access elevator during Phase II operation. The industry generally does not submit fixtures for testing to obtain a fire-resistance rating.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G9-11-3007.7.1

G167–09/10
3007.8 (New)

Proponent: Dave Frable, U.S. General Services Administration

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3007.8 Fire service access elevator symbol. A pictorial symbol of a standardized design designating which elevators are fire service access elevators shall be installed on each side of the hoistway door frame on the portion of the frame at right angles to the fire service access elevator lobby. The fire service access elevator symbol shall be designed as shown in Figure 3007.8 and shall comply with the following:

1. The fire service access elevator symbol shall be a minimum of 3 inches (76 mm) in height.
2. The vertical center line of the fire service access elevator symbol shall be centered on the hoistway door frame. Each symbol shall not be less than 78 inches (1981 mm), and not more than 84 (2134 mm) inches above the finished floor at the threshold.

FIGURE 3007.8
FIRE SERVICE ACCESS ELEVATOR SYMBOL

Reason: The intent of this code change is to provide a means to designate which elevators in a building have been designated as fire service access elevators via a standardized pictorial symbol to be installed on each side of the door frame of each designated elevator. The subject symbol is based on the fire fighters hat referenced in ASME A17.1/CSA B44.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G1-3007.8

G168–09/10
3008.1, 3008.3 (New)

Proponent: Matthew Davy, P.E., Schirmer Engineering Corporation, representing self

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3008.1 General. Where elevators are to be used for occupant self-evacuation during fires, all passenger elevators for general public use shall comply with this section. Where other elevators are used for occupant self-evacuation, they shall also comply with ~~this section.~~Sections 3008.1 through 3008.16.

3008.1.1 Alternative compliance. Where approved by the building official, occupant evacuation elevators shall comply with ASME A17.1/CSA B44 and shall be permitted to comply with standards alternative to Sections 3008.4 through 3008.16 provided such alternative standards are supported by an approved engineering analysis.

3008.2 Fire safety and evacuation plans. (No change to current text)

3008.3 Engineering analysis. An engineering analysis shall be conducted and approved for an occupant evacuation elevator.

3008.3.1 Analysis. The engineering analysis of the occupant evacuation elevator shall include a risk analysis, hazard analysis, or equivalent analysis. The analysis shall consider, as a minimum, the items indicated in Sections 3008.4 through 3008.16.

3008.3.2 Construction documents. The engineering analysis supporting the occupant evacuation elevators, their method of operation, systems supporting them, and methods of construction to be used shall accompany the submitted construction documents.

(Renumber subsequent sections)

Reason: An engineering analysis must be required for occupant evacuation elevator systems. These systems have many dynamic components and human interface aspects, which need to be reviewed, analyzed, and documented prior to acceptance by the code official or authority having jurisdiction. Occupant evacuation elevator systems are a life safety system that demands a rigorous analysis, such as a risk analysis or hazard analysis, for each building configuration and occupancy. The documentation requirement is consistent with the analysis for smoke control systems.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: DAVY-G1-3008.3

G169–09/10
3008.1.1 (New)

Proponent: Bill Ziegert, Smoke Guard, Inc.

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3008.1.1 Occupant evacuation elevators permitted. Occupant evacuation elevators shall be permitted only when the elevator code (ASME A17.1/CSA B44 or other) adopted by the jurisdiction contains specific requirements for the design, operation and maintenance of emergency evacuation operation (EEO).

Reason: Occupant Evacuation Elevators require many special operational / design requirements not found in the Building Code, and currently not included in any edition issued or under development of the ASME A17.1/CSA B44 Elevator Code. The proper operation and sequencing of the elevators to efficiently move occupants from the affected floors is the most important part of the occupant evacuation system and incorporation of this functionality currently allowed under the building code should not be allowed until the Elevator systems are designed with this additional functionality adequately addressed.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ZIEGERT-G2-3008.1.1

G170–09/10
3008.1

Proponent: Rick Thornberry, PE, The Code Consortium, Inc., representing: California Fire Safety Advisory Council (CFSAC)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3008.1 General. Where elevators are to be used for occupant self-evacuation during fires, all passenger elevators for general public use shall comply with this section. Where other elevators are used for occupant self-evacuation, they shall also comply with this section. Also see Section 1003.7.

Reason: This code change provides a simple cross-reference to Section 1003.7 Elevators, Escalators, and Moving Walks in order to make sure the user of the code realizes that elevators are not allowed to be used as a component of a required means of egress from any other part of the building. Currently, this new technology utilizing elevators for occupant self-evacuation is still in its infancy. It needs to be further assessed by the voluntary use of occupant elevators for evacuation without reducing the current requirements for means of egress until such time as they have been proven to be safe, reliable, and effective. Therefore, this cross-reference reminder is important for the proper application of the code.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THORNBERRY-G4-3008.1

G171–09/10
3008.4 (New)

Proponent: Dave Frable, U.S. General Services Administration

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3008.4 Phase I Emergency recall operation. An independent, three-position, key-operated "Fire Recall" switch shall be provided at the designated level for each occupant evacuation elevator in accordance with the requirements in ASME A17.1/CSA B44.

(Renumber subsequent sections)

Reason: The intent of this code change is to provide further clarification in meeting the original intent regarding the design and operation of fire service access elevators. This code change will also ensure the subject (as specific) elevators can be recalled quickly at the designated level by the responding firefighters.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G8-3008.4

G172–09/10
3008.7 (New)

Proponent: Matthew Davy, P.E., Schirmer Engineering Corporation, representing self

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Add new text as follows:

3008.7 Activation. Occupant evacuation elevator systems shall be activated by any of the following:

1. The operation an automatic sprinkler system complying with Section 3008.6;
2. Smoke detectors required by another provision of the code; or required as an alternative standard complying with Section 3008.1.1.
3. Approved manual controls.

(Renumber subsequent sections)

Reason: The current occupant evacuation elevator requirements do not contain a means for system activation. This new section provides a minimum set of initiating devices to activate the automatic operation. An example of smoke detectors required by another section of this code includes smokeproof enclosures for the mechanical ventilation or stair pressurization alternative. An engineering analysis should be required for occupant evacuation elevators that includes a section on system activation.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: DAVY-G2-3008.7

G173–09/10
3008.9, 3008.9.1 (New)

Proponent: Rick Thornberry, PE, The Code Consortium, Inc., representing: California Fire Safety Advisory Council (CFSAC)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3008.9 Hoistway enclosure protection. ~~The~~ Occupant evacuation elevator~~s~~ hoistways shall be located in ~~a hoistway~~ shaft enclosure~~(s)~~ complying with Section 708.

3008.9.1 Structural integrity of hoistway enclosures. Occupant evacuation elevator hoistway shaft enclosures shall comply with Section 403.2.3.

Reason: This code change is a follow up to Code Change G65-07/08 by the Gypsum Association which also addressed the issue of structural integrity of exit stairway and elevator hoistway shaft enclosures in super high-rise buildings (those greater than 420 ft in height). It was approved as revised by Public Comment #2 at the ICC Final Action Hearings held in Minneapolis, MN.

In our opinion, it follows that the structural integrity requirements for super high-rise building exit stairway and elevator hoistway shaft enclosures should also apply to elevator hoistway shaft enclosures provided for occupant evacuation elevators which are just as critical for life safety protection. Such new technology for evacuation of occupants should be provided with the highest level of fire protection that is reasonably possible in order to assure that the elevators will be available during a fire emergency to serve their intended purpose of evacuating the occupants. Certainly, the structural integrity of the elevator hoistway shaft enclosures should be required to have some reasonable degree of physical protection to assure that the hoistway shaft enclosures will remain in place when needed during a fire or other emergency.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: THORNBERRY-G5-3008.9

G174–09/10
3008.10

Proponent: Dave Frable, U.S. General Services Administration

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3008.10 Water protection. ~~The occupant evacuation elevator hoistway shall be designed utilizing~~ An *approved* method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system ~~from infiltrating into the hoistway enclosure.~~ outside the enclosed occupant evacuation elevator lobby shall be provided.

Reason: The intent of this code change is to clarify the performance language in meeting the original intent of this section regarding providing a means to prevent water from an operating sprinkler system from infiltrating into the hoistway enclosure. The subject proposed language is similar to the proposed language in Section 3007.4 for fire service access elevators.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FRABLE-G2-3008.10

G175–09/10
3008.10.1 (New)

Proponent: Gregory J. Cahanin, Cahanin Fire & Code Consulting, representing the Smoke Safety Council

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3008.10 Water protection. The occupant evacuation elevator hoistway shall be designed utilizing an approved method to prevent water from the operation of the automatic sprinkler system from infiltrating into the hoistway enclosure.

3008.10.1. Water Intrusion. For elevators serving four or more stories in buildings equipped throughout with an automatic sprinkler system, hoistways and equipment shall be protected from the effects of water intrusion from openings into the hoistway. Protection shall comply with one of the following;

1. A 1 ½ inch raised threshold in front of the elevator opening with a slope of 2 percent or less;
2. Automatic dams or barriers that prevent the intrusion of water into the elevator shaft and are approved by the building official; or
3. Drains or grates across the elevator hoistway opening capable of removing water generated by a minimum of four fire sprinklers for the building.

Reason: This is a revised proposal from last cycle which generated multiple discussions on the actual design of solutions indicating that there is a problem with water intrusion and there needs to be a definitive requirement in the code. Proposals by others also addressed this issue for the new classifications of elevators. The committee suggested an exception for buildings or elevators serving 3 or few levels and it is carried over with revised and more specific requirements.

Water intrusion into the elevator hoistway damages the electrical equipment that operates the elevator and potentially traps emergency personnel and occupants in the process of egressing.

This change recognizes three primary methods of protecting the opening. First, raising the threshold by 1.5 inches will direct the water to other lower areas of the floor. Setting the benchmark at 1.5 inches above the surrounding areas make a subtle rise in the floor possible while meeting the slope requirements found in Section 1010 while helping to direct water away from the opening.

Second, there are several commercially available automatic dams or barriers that can stop water intrusion. The qualifier that the AHJ must accept these systems that now have no definitive testing criteria allows for development of newer methods.

Third, the design of floor drains at the entrance to elevator hoistways is a viable method of controlling waterflow into buildings. The 4 sprinkler flow requirement is twice the expected flow based upon sprinkler operation data.

This change is submitted in three areas of Chapter 30-an overall general requirement or failing that then a requirement for newly established occupant evacuation elevators and fire service access elevators.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: CAHANIN-G1-3008.10.doc

G176–09/10
3007.4.3, 3008.11.3

Proponent: Brian Black, BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3007.4.3 Lobby doorways. Other than the door to the hoistway, each doorway to a fire service access elevator lobby shall be provided with a ~~doorway that is protected with a~~ $^3/_4$-hour *fire door assembly* complying with Section 715.4. The *fire door assembly* shall also comply with the smoke and draft control door assembly requirements of Section 715.4.3.1 with the UL 1784 test conducted without the artificial bottom seal.

3008.11.3 Lobby doorways. Other than the door to the hoistway, each doorway to an occupant evacuation elevator lobby shall be provided with a ~~doorway that is protected with a~~ $^3/_4$-hour *fire door assembly* complying with Section 715.4. The fire door assembly shall also comply with the smoke and draft control assembly requirements of Section 715.4 3 1 with the UL 1784 test conducted without the artificial bottom seal.

Reason: The proposed new sentence to Section 3008.11.3 correlates with the lobby doorway requirements for fire service access elevators in Section 3007.4.3. The integrity and tenability of elevator lobbies used for occupant evacuation is just as critical as that provided for fire service access. The revision to the first sentence in both sections clarifies that the requirement for the rated doors applies to all doors into the lobby, except for the hoistway door. As currently written, the code could be interpreted to only require one door into the lobby to be a rated assembly, while any other door could be unrated.

Cost Impact: This code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G3-3008.11.3.doc

G177–09/10
3008.11.5, 1110.3

Proponent: Manny Muniz, California Deputy State Fire Marshal (Ret.), representing self

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3008.11.5 Signage. An approved sign ~~indicating elevators are suitable for occupant self-evacuation~~ stating **PROTECTED ELEVATOR – USABLE IN EMERGENCIES** shall be posted on all floors adjacent to each elevator call station serving occupant evacuation elevators. Signage shall comply with visual character requirements in ICC A117.1 and include the International Symbol of Accessibility. Where exit sign illumination is required by Section 1011.2, the signs shall be illuminated.

1110.3 Other signs. Signage indicating special accessibility provisions shall be provided as shown:

1. through 6. (No change to current text)
7. At occupant evacuation elevators, signage shall be provided in accordance with Section 3008.11.5.

Reason: Exit signage should be consistent in all buildings that have protected elevators. 3008.11.5 requires such a sign but does not specify that wording for the sign. All required life safety signs that require words should clearly state the words, should be accessible in accordance with ICC A117.1, and should have illumination as required for exit signs. The proposed language is similar to 1007.9 for **AREA OF REFUGE** signs. The words **PROTECTED ELEVATOR – USABLE IN EMERGENCIES** is the same as recommended in the NFPA 101 Life Safety Code.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MUNIZ-G1-3008.11.5

G178–09/10
707.5.1, 712.4, 3104.5

Proponent: Kaitlin McGillvray, Code Consultants Professional Engineers, PC

Revise as follows:

3104.5 Fire Barriers between pedestrian walkways and buildings. Walkways shall be separated from the interior of the building by not less than 2 hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. This protection shall extend vertically from a point 10 feet (3048 mm) above the walkway roof surface or the connected building roof line, whichever is lower, down to a point 10 feet (3048 mm) below the walkway and horizontally 10 feet (3048 mm) from each side of the pedestrian walkway. Openings within the l0-foot (3048 mm) horizontal extension of the protected walls beyond the walkway shall be equipped with devices providing a 3/4-hour fire protection rating in accordance with Section 715.

Exception: The walls separating the pedestrian walkway from a connected building and the openings within the 10 foot horizontal <u>and vertical</u> extension of the protected walls beyond the walkway are not required to have a fire-resistance rating by this section where any of the following conditions exist:

1. The distance between the connected buildings is more than 10 feet (3048 mm), the pedestrian walkway and the connected buildings, except for open parking garages, are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The wall is capable of resisting the passage of smoke or is constructed of tempered, wired, or laminated glass walls and doors and subject to the following:
   - 1.1. The wall or glass separating the interior of the building from the pedestrian walkway shall be protected by an automatic sprinkler system in accordance with Section 903.3.1.1 and the sprinkler system shall completely wet the entire surface of interior sides of the glass wall when actuated.
   - 1.2. The glass shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler operates.
   - 1.3. Obstructions shall not be installed between the sprinkler heads and the wall or glass.
2. The distance between the connected buildings is more than 10 feet (3048 mm) and both sidewalls of the pedestrian walkway are at least 50 percent open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.
3. Buildings are on the same lot in accordance with Section 503.1.2.
4. Where exterior walls of connected buildings are required by Section 704 to have a fire-resistance rating greater than 2 hours, the walkway shall be equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

707.5.1 Supporting construction. The supporting construction for a *fire barrier* shall be protected to afford the required *fire-resistance rating* of the *fire barrier* supported. Hollow vertical spaces within a *fire barrier* shall be fireblocked in accordance with <u>Section 717.2</u> at every floor level.

Exceptions:

1. The maximum required *fire-resistance rating* for assemblies supporting *fire barriers* separating tank storage as provided for in Section 415.6.2.1 shall be 2 hours, but not less than required by Table 601 for the building construction type.
2. Shaft enclosures shall be permitted to terminate at a top enclosure complying with Section 708.12.
3. Supporting construction for 1-hour *fire barriers* required by Table 508.2.5 in buildings of Type IIB, IIIB and VB construction is not required to be fire-resistance rated unless required by other sections of this code.
4. <u>Supporting construction for fire barriers required by Section 3104.5 is not required to be fire-resistance rated unless required by other sections of this code.</u>

712.4 Continuity. Assemblies shall be continuous without openings, penetrations or joints except as permitted by this section and Section 708.2, 713.4, 714 and 1022.1. Skylights and other penetrations though a fire-resistance-rated roof deck or slab are permitted to be unprotected, provided that the structural integrity of the fire-resistance-rated roof assembly is maintained. Unprotected skylights shall not be permitted in roof assemblies required to be fire-resistance rated in accordance with Section 704.10. The supporting construction shall be protected to afford the required *fire-resistance rating* of the *horizontal assembly* supported.

Exception: In buildings of Type IIB, IIIB or VB construction, the construction supporting the *horizontal assembly* is not required to be fire-resistance-rated at the following:

1. Horizontal assemblies at the separations of incidental uses as specified by Table 508.2.5, provided the required *fire-resistance rating* does not exceed 1 hour.
2. Horizontal assemblies at the separations of *dwelling units* and *sleeping units* as required by Section 420.3.
3. Horizontal assemblies at *smoke barriers* construction in accordance with Section 710.
4. <u>Supporting construction for horizontal assemblies required by Section 3104.5 is not required to be fire-resistance rated unless required by other sections of this code.</u>

Reason: The additional wording in the exception is intended to be editorial in order to clarify the application of the exception to the base requirements of Section 3104.5. As determined during the 06/07 code change cycle, the intent of the Section 3104.5 exception is that application of any of the four listed design alternatives under the exception will apply to all of the base requirements. Therefore, the exceptions apply to the interior walls between the walkway and the connected buildings and the horizontal *and* vertical extensions of the connected buildings.

In conjunction with the required fire barriers between pedestrian walkways and buildings, Section 707.5.1 and Section 712.4 were modified. The exception added to Section 707.5.1 is intended to clarify the extent of the protection between the pedestrian walkway and the buildings. Fire barriers are intended to prevent the interior spread of fire; not to prevent the exterior spread of fire. Section 707.4 supports this intent by requiring exterior walls that serve as a part of a shaft or exit enclosure (required to be constructed as fire barriers) to comply with Section 705 for exterior walls and not Section 707 for fire barriers. By requiring a fire barrier between the pedestrian walkway and buildings, the supporting construction must also be protected to afford the required fire-resistance rating of the fire barrier supported. This would mean that the rated construction must be extended from the pedestrian walkway connection to grade, which is contradictory to the 10 foot extension required below the connection in the base requirement.

The exception added to Section 712.4 is also intended to clarify the extent of the protection between the pedestrian walkway and the buildings. Where pedestrian walkways are separated from the interior of the building by horizontal assemblies, the supporting construction must be protected to afford the required fire-resistance rating of the horizontal assembly supported. This would also mean that the rated construction must be extended from the pedestrian walkway connection to grade, which is contradictory to the 10 foot extension required below the connection in the base requirement.

Cost Impact: The code change proposal will not increase the cost of construction

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MCGILLVRAY-G1-3104.5.DOC

G179–09/10
3104.5. 3104.8, 3104.9 (New)

Proponent: David S. Collins, FAIA, The Preview Group, Inc., The American Institute of Architects

1. Revise as follows:

3104.5 Fire barriers between pedestrian walkways and buildings. Walkways shall be separated from the interior of the building by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 712, or both. This protection shall extend vertically from a point 10 feet (3048 mm) above the walkway roof surface or the connected building roof line, whichever is lower, down to a point 10 feet (3048 mm) below the walkway and horizontally 10 feet (3048 mm) from each side of the *pedestrian walkway*. Openings within the l0-foot (3048 mm) horizontal extension of the protected walls beyond the walkway shall be equipped with devices providing a 3/4-hour *fire protection rating* in accordance with Section 715. <u>Openings connecting the building to the pedestrian walkway shall not be considered openings for the purpose of determining allowable area of openings in Section 705.8, nor are openings connecting the building to the pedestrian walkway required to be protected except as required by this section.</u>

Exception: The walls separating the *pedestrian walkway* from a connected building and the openings within the 10- foot (3048 mm) horizontal extension of the protected walls beyond the walkway are not required to have a *fire-resistance rating* by this section where any of the following conditions exist:

1. The distance between the connected buildings is more than 10 feet (3048 mm). The *pedestrian walkway* and connected buildings, except for *open parking garages*, are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. The wall is capable of resisting the passage of smoke or is constructed of a tempered, wired or laminated glass wall and doors subject to the following:
   1.1. The wall or glass separating the interior of the building from the *pedestrian walkway* shall be protected by an *automatic sprinkler system* in accordance with Section 903.3.1.1 and the sprinkler system shall completely wet the entire surface of interior sides of the wall or glass when actuated;
   1.2. The glass shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler operates; and
   1.3. Obstructions shall not be installed between the sprinkler heads and the wall or glass.
2. The distance between the connected buildings is more than 10 feet (3048 mm) and both sidewalls of the *pedestrian walkway* are at least 50 percent open with the open area uniformly distributed to prevent the accumulation of smoke and *toxic* gases.
3. Buildings are on the same lot in accordance with Section 503.1.2.
4. Where *exterior walls* of connected buildings are required by Section 705 to have a *fire-resistance rating* greater than 2 hours, the walkway shall be equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.

The previous exception shall apply to *pedestrian walkways* having a maximum height above grade of three *stories* or 40 feet (12 192 mm), or five *stories* or 55 feet (16 764 mm) where sprinklered.

3104.8 Width. The unobstructed width of *pedestrian walkways* shall not be less than 36 inches (914 mm). The total width of each walkway shall not exceed 30 feet (9144 mm).

2. Add new text as follows:

3104.9 Multiple walkways and spacing. Pedestrian walkways located on multiple floors shall be permitted. For the purpose of determining wall and opening protection of multiple pedestrian walkways, where walkways are located adjacent to each other or adjacent and within one floor of each other, the requirements of Section 3104.5 shall apply to the walkway.

Exception: Pedestrian walkways which are stacked directly over each other shall be permitted without protection specified in Section 3104.5

Reason: Protection of openings in this section provides the necessary protection for separation from the building and the pedestrian walkway. No additional requirement for protection of these openings is necessary in Section 602. Nothing in the code prohibits the construction of more than one walkway between buildings. This change clarifies that the 30 foot width is for each walkway, not cumulatively. The new Section 3104.9 specifies that multiple walkways are to be stacked one above the other, or must be separated from each other as prescribed by Table 602

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: COLLINS-G6-3104.8

G180–09/10
3104.7

Proponent: David S. Collins, FAIA, The Preview Group, Inc., representing The American Institute of Architects

Revise as follows:

3104.7 ~~Egress~~ Entrance and exit. Pedestrian walkways shall be permitted to provide access to enter or exit a building. Access shall be provided at all times to a pedestrian walkway that serves as a required exit.

Reason: The pedestrian walkway may be used as an exit under 3104.7, therefore it should be permitted to be an entrance as well.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: COLLINS-G2-3104.7.doc

G181–09/10
3108.1

Proponent: Kevin Moore, P.E., S.E., SECB and Edwin Huston, P.E., S.E., SECB, representing National Council of Structural Engineers Associations

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3108.1 General. Towers shall be designed and constructed in accordance with the provisions of TIA-222. Towers shall be designed for seismic loads; exceptions related to seismic design listed in Section 2.7.3 of TIA-222 shall not apply.

> **Exception**: Single free-standing poles used to support antennas not greater than 75 feet (22 860 mm), measured from the top of the pole to grade, shall not be required to be noncombustible.

Reason: Seismic design of Communications Towers has been required by the IBC up through the 2003 edition. For many years, the Legacy Code (UBC) required seismic design of these towers.

An exemption for seismic design of towers was developed within the 2009 IBC, via reference to Standard TIA 222 (the latest edition of TIA 222 is referred to as 222-G). Without the IBC's reference to Standard TIA 222, ASCE 7-05 requires seismic design of towers, TIA 222-G caries exemptions to seismic design in certain conditions.

The exemptions provided in TIA 222-G are flawed because of the following:

1) Requirements for Standards

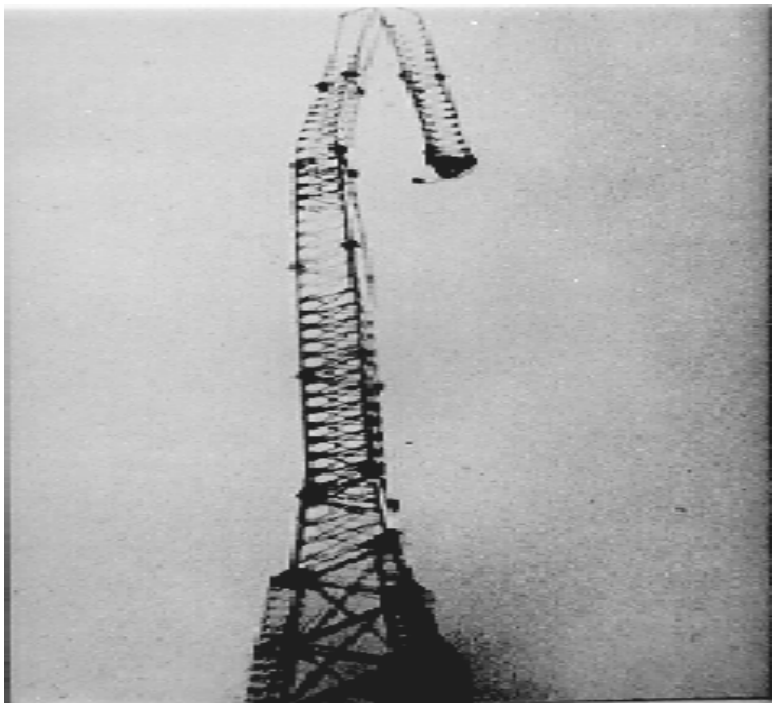
A Standard is required to provide the same basic level of public safety as the IBC. ASCE 7 Section 11.1.2 Scope, states that "Every structure, and portion thereof, including non-structural components, shall be designed and constructed to resist the effects of earthquake motions as prescribed by the seismic requirements of this standard. Certain nonbuilding structures, as described in Chapter 15, are also within the scope and shall be designed and constructed in accordance with the requirements of Chapter 15."

Chapter 15 gives specific requirements for design of communications towers. No exemptions are provided. TIA-222 is not listed as a referenced standard within the ICC Codes for seismic design, so seismic design requirements should be governed by ASCE 7 (222-F did not include a seismic design chapter)

TIA 222-G, because of exemptions to seismic design requirements, does not meet the minimum standard of care for design established by the IBC and ASCE 7.

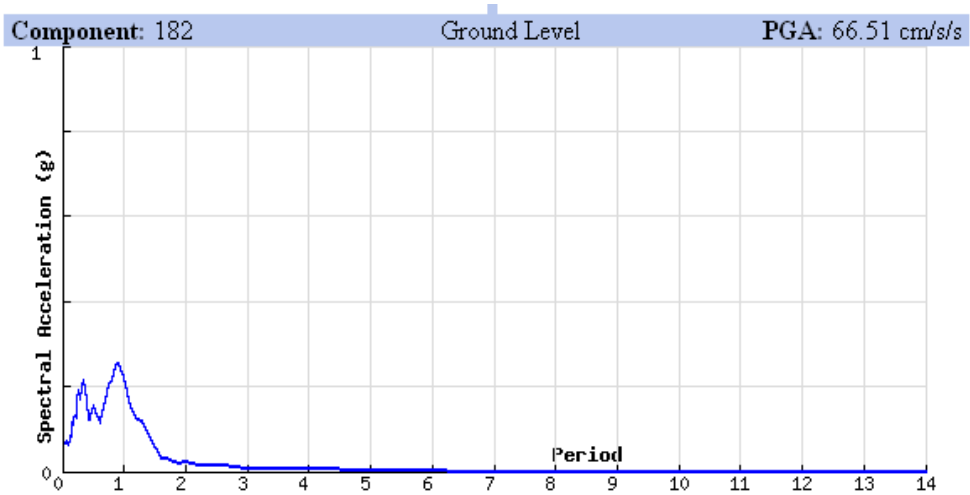
2) Historical Example

Areas that have been subjected to significant seismic ground motion recently have all affected towers that were designed to resist seismic forces Legacy Code. One must refer to historic examples to understand the effects of seismic forces on towers designed for wind only. One representative example is the KJR Radio Tower in Seattle, WA, that collapsed during the 1949 earthquake.



KJR Tower Collapse, 1949, Seattle, WA

It is instructive to look at the magnitude of earth motion at the tower location. While the 1949 earthquake was a significant earthquake, the KJR tower was located some distance away from the epicenter – about 48 miles. A ground motion record was recorded near the tower, at an army base on Marginal Way in Seattle:



The peak Spectral Acceleration was 0.13 g, as compared to a design level event of 1.05 g for Seattle.

TIA 222-G exempts seismic design of all towers located in areas where Ss is less than 1.0g. The ground motion that failed the KJR Radio Tower was equivalent to an Ss of 0.13g.

3) Analytical Example

TIA 222-G provides exemptions for seismic design for towers in areas where Ss < 1.0 and if the seismic base shear is less than ½ the wind base shear, regardless of seismicity.

Communications towers are typically flexible. Higher order dynamic effects usually dominate the structural fundamental response, usually necessitating some form of modal analysis. Because of the higher order modal effects, critical forces occur high up in the structure resulting in failures toward the top of the structure (as evinced with the KJR Radio tower failure).

Because of the higher order response of tower structures, exceptions based on base shear values are not warranted.

The following example using RISA Tower (provided by the City of Tacoma Building Department) elucidates some of the challenges associated with the existing code provision.

Assumptions:
Wind speed 85 mph, Exp B, Kzt=1.0
Essential Facility
Soil Class D

Analytical Results:

Site	Seismic Factor	Seismic Base Shear/ Wind Base Shear	Seismic Moment/ Wind Mom. (max)
Tacoma, WA	Ss=1.212 S1=0.418 Sds=0.822 Sd1=0.433	0.46	1.83

Site	Seismic Factors	Seismic Base Shear/ Wind Base Shear	Seismic Moment/ Wind Mom. (max)
Centralia, WA	Ss=1.000 S1=0.396 Sds=0.739 Sd1=0.424	0.44	1.65
Mid-western Oregon	Ss=0.600 S1=0.255 Sds=0.517 Sd1=0.321	0.33	1.16

For the tower located in Mid-western Oregon, having an Ss value of 0.6, (Ss<= 1.0), still produced seismic forces (in this case moments) 16% greater than wind loading. This maximum loading occurs near the top of the tower structure. The analysis also indicates that the ration between seismic base shear and wind base shear = 0.33, well below the exemption trigger of 0.50. However, seismic forces still produce higher forces than those developed from wind.

For a tower located in Centralia, WA (Ss=1.0), we see that seismic moments are approximately 65% greater than moments developed from wind forces.

Even in Tacoma, the seismic base shear/wind base shear < 0.50, which would have exempted this example tower from being designed for seismic forces (however, seismic forces generate moments that are 83% greater than moments resulting from wind forces).

Cost Impact: The code change proposal will not increase the cost of construction. The code change proposal will return cost of construction to levels commensurate with construction executed under designs compliant with the 2003 IBC.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: MOORE-HUSTON-G1-3108.1

G182–09/10
3109, Chapter 35

Proponent: Lorraine Ross, Intech Consulting Inc., representing Association of Pool and Spa Professionals

1. Revise as follows:

SECTION 3109
SWIMMING POOLS, SPAS AND AQUATIC RECREATIONAL FACILITIES
~~ENCLOSURES AND SAFETY DEVICES~~

3109.1 General. Swimming pools shall comply with the requirements of this section and other applicable sections of this code.

3109.1.1 Public swimming pools. Public swimming pools shall be designed and constructed in accordance with ANSI/NSPI -1.

3109.1.2 Public spas. Public spas shall be designed and constructed in accordance with ANSI/NSPI -2.

3109.1.3 Aquatic recreational facilities. Aquatic recreational facilities shall be designed and constructed in accordance with ANSI/IAF-9.

2. Add new definition as follows:

3109.2 Definitions. The following ~~word and term~~ words and terms shall, for the purposes of this section and used elsewhere in the code, have the meaning shown herein.

AQUATIC RECREATIONAL FACILITIES Facilities containing pools for free-form aquatic play and recreation such as waterparks, wave action pools; activity pools; catch pools; leisure rivers; vortex pools; interactive play attractions.

3. Revise as follows:

3109.3 Enclosures for public swimming pools. Public swimming pools shall be completely enclosed by a fence at least 4 feet (1290 mm) in height or a screen enclosure. Openings in the fence shall not *permit* the passage of a 4-inch-diameter (102 mm) sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates.

3109.4 Enclosures for residential swimming pools. Residential swimming pools shall comply with Sections 3109.4.1 through 3109.4.3.

Exception: A swimming pool with a power safety cover or a spa with a safety cover comply with ASTM F 1346.

4. Add new standards to Chapter 35 as follows:

ANSI

ANSI/NSPI -1 2003	Public Pools Swimming Pools
ANSI/NSPI -2 1999	Public Spas
ANSI/IAF-9 2005	American National Standard for Aquatic Recreational Facilities

Reason: This code change proposal fills a gap in the International Building Code (IBC) regarding the design and construction of public swimming pools, public spas and aquatic recreational facilities by adding national consensus standards for these items. The ICC code development process recognizes the importance of credible construction and safety standards. Furthermore, these proposed standards were developed and are maintained through ANSI as required by ICC "Council Policy CP# 28-05 CODE DEVELOPMENT Section 3.6.3.2 The standard shall be developed and maintained through a consensus process such as ASTM or ANSI".

Revisions to Sections 3109.3 and 3109.4 clarify that these sections specifically address enclosures for swimming pools.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: A review of the standards proposed for inclusion in the code, ANSI/NSPI-1, -2 and ANSI/IAF-9, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ROSS-G1-3109

G183–09/10
3202.2.1

Proponent: Katherine Bang, representing the City of Portland, Bureau of Development Services

Revise as follows:

3202.2.1. ~~Steps~~ Handrails. ~~Steps~~ Handrails shall not project more than 12 inches (305 mm). ~~and~~ Handrails shall be guarded by approved devices no less than 3 feet (914 mm) high~~,~~ or shall be located between columns or pilasters. The extension of handrails shall be in the same direction of the stair flights at stairways and the ramp runs at ramps.

Reason: The code already requires handrails, regardless of the number of steps, and the code also requires handrail extensions. If steps are permitted to project into the public right of way, it suggests that handrails would be permitted to extend 12" beyond that. I don't think it was the intention of the code to allow handrails to extend 24" into the public right of way so I have eliminated steps from this section and replaced it with handrails. The last sentence is the current language for handrail extensions in Section 1012.6.

Cost Impact: None - this is a clarification of code intent.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BANG-G4-3202.2.1

G184–09/10
3302.1.1 (New) [IEBC [B] 1401.3.1 (New)]

Proponent: Randy Ohler, RA, Littlestown PA, representing City of Gaithersburg, MD.

Add new text as follows:

3302.1.1 (IEBC [B] 1401.3.1) Maintaining existing occupied areas while under construction. Separation between existing occupied and proposed work areas must be maintained during construction by means of temporary construction barriers. Areas under alteration or demolition are work zones. Work areas shall be separated from public occupied areas by a solid, noncombustible wall having a minimum one-hour fire resistance rating. In non-sprinklered buildings, the required separation shall be from floor to ceiling or from floor to the underside of the next deck above, floor or roof. In a sprinklered building, with an operational automatic sprinkler system in both the occupied space and the work zone, the barrier shall be a solid, limited combustible wall, at least 6 feet in height, with a limited combustible, non-solid dust/smoke barrier (such as fire retardant plastic sheeting) extending to the ceiling or from floor to the underside of the next deck above, floor or roof. In both cases, openings for workers to access construction areas shall be through self-closing gates, constructed of material similar or equal to the walls. Worker openings shall be posted with signage notifying occupants they are not permitted to enter the construction area. All required means of egress elements that serve the occupied area shall remain open, free from obstruction or construction related hazards, at the full required width, to a public way, in compliance with this code. Any altered or temporary egress route shall be approved by the building official prior to commencement of the construction activity.

Reason: Some jurisdictions do not adopt any code other than the single IBC and IRC. Current language in Section 3302.1 does not adequately define any specific requirements for safety, leaving it up to the building official to decide proper protection, but no specific concrete section for which to quote from when questioned by others. This new paragraph would help address the safety of persons within those jurisdictions, whom adopt the single code, subjected to any proposed construction activity while in an occupied building currently under construction. Construction activities can present additional fire and life safety risks that may include increased fuel loads, altered egress routes, hot work activities, and compromised fire suppression, detection and alarm systems. Fire potential during construction, alteration, or demolition operations is inherently high and can produce rapid fire spread and devastating results. Isolating the occupants from construction activities will allow additional time to escape from the consequences, and assist in compartmentalization of any fire or emergency event.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: OHLER-G1-3302.1.1

G185-09/10
IBC 3302.3 (New) [IEBC 1401.5 (New)], 3303.7 (New); IFC 1404.5

Proponent: Marshall Klein, PE, Marshall A. Klein & Associates, Inc., representing National Multi Housing Council (NMHC)

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IBC GENERAL CODE COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THE IBC GENERAL CODE COMMITTEE.

PART I – IBC GENERAL

Add new text as follows:

3302.3 (IEBC [B] 1401.5) Fire safety during construction. Fire safety during construction shall comply with the applicable requirements of this code and the applicable provisions of Chapter 14 of the *International Fire Code.*

3303.7 Fire safety during demolition. Fire safety during demolition shall comply with the applicable requirements of this code and the applicable provisions of Chapter 14 of the *International Fire Code.*

PART II – IFC

Revise as follows:

IFC 1404.5 Fire watch. When required by the fire code official for building demolition, or building construction during working hours, that is hazardous in nature, qualified personnel shall be provided to serve as an on-site fire watch. Fire watch personnel shall be provided with at least one approved means for notification of the fire department and their sole duty shall be to perform constant patrols and watch for the occurrence of fire.

Reason: Intent of Part 1 of this code proposal is to correlate the IBC Section 3302, "Construction Safeguards", and the IFC requirements on fire safety during construction and demolition. IFC Chapter 14, "Fire Safety During Construction and Demolition" has all the fire safety requirements provided in one place for the fire safe operations during construction and demolition. The intent of Part II to IFC is to address the times when a fire watch is appropriate at a construction site during working hours and this code proposal will address such a need.

Cost Impact: The code change will not increase the cost of construction.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IFC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: KLEIN-G3 3302.3

G186–09/10
3306.10 (New), Chapter 35

Proponent: Eli P. Howard, III, Sheet Metal and Air Conditioning Contractor's National Association, Inc.

1. Add new text as follows:

3306.10 Occupant Protection During Construction. An indoor air quality (IAQ) management plan shall be developed and implemented for the construction and preoccupancy phases of the building as follows:

1. During construction, the recommended control measures of Chapter 3 of ANSI/SMACNA 008 shall be met or exceeded.
2. Stored on-site and installed absorptive materials shall be protected from moisture damage.
3. Temporary space conditioning equipment shall be installed during construction

2. Add new standard to Chapter 35 as follows:

SMACNA
ANSI/SMACNA 008-2008 IAQ Guidelines for Occupied Buildings Under Construction.

Reason: Currently there is insufficient guidance of how to address air quality in buildings that are under construction but partially or entirely occupied. This situation can occur both in existing buildings that are being renovated or new buildings where portions of the building that are completed are being occupied while construction continue on uncompleted portions.

Cost Impact: The code change proposal will increase the cost of construction. Minor costs may be incurred but if the movement of pollutants into occupied spaces is controlled well the savings in clean up costs and the benefit of full length equipment warranties to the owner will likely provide an overall cost savings.

Analysis: A review of the standard proposed for inclusion in the code, ANSI/SMACNA 008, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: HOWARD-G1-3306.10 NEW

G187–09/10
3401.1 (IEBC [B] 301.1)

Proponent: Patrick Vandergriff, Vandergriff Code Consulting Services, representing Modular Building Institute

Revise as follows:

3401.1 (IEBC [B] 301.1) Scope. The provisions of this chapter shall control the alteration, repair, addition, ~~and~~ change of occupancy, and relocation of existing structures.

Exception: Existing bleachers, grandstands and folding and telescopic seating shall comply with ICC 300.

Reason: This recommended language picks up the code philosophy that the code applies to relocated structures and standardizes it throughout the code.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: VANDERGRIFF-G2-3401.1.doc

G188–09/10
3401.3 (IEBC [B] 301.1.1)

Proponent: Patrick Vandergriff, Vandergriff Code Consulting Services, representing Modular Building Institute

Revise as follows:

3401.3 (IEBC [B] 301.1.1) Compliance. Alterations, repairs, additions and changes of occupancy to, or relocation of, existing structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy in the *International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Property Maintenance Code, International Private Sewage Disposal Code*, *International Residential Code* and NFPA 70.

Reason: This recommended language picks up the code philosophy that the code applies to relocated structures and standardizes it throughout the code.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: VANDERGRIFF-G5-3401.3.doc

G189–09/10
3401.3

Proponent: David Bonowitz, S.E., National Council of Structural Engineers Associations, Code Advisory Committee, Existing Buildings Subcommittee (NCSEA EBS)

Revise as follows:

3401.3 Compliance. Alterations, repairs, additions and changes of occupancy to existing structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy, respectively, in the *International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Property Maintenance Code, International Private Sewage Disposal Code, International Residential Code* and NFPA 70. Where provisions of the other codes conflict with provisions of this Chapter, the provisions of this Chapter shall take precedence.

Reason: The proposal clarifies and confirms the intent of Section 3401.3.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BONOWITZ-G5-3401.3.DOC

G190–09/10
3401.4, 3401.4.3 (New), 3403.4.1, 3404.4.1, 3405.2.1, 3408.4; (IEBC [B] 301.2, 301.2.3 (New), 302.4.1, 303.4.1, 304.2.1, 307.4)

Proponent: David Bonowitz, David Bonowitz, S.E., National Council of Structural Engineers Associations, Code Advisory Committee, Existing Buildings Subcommittee (NCSEA EBS)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

1. Revise as follows:

3401.4 (IEBC [B] 301.2) Building materials and systems. Building materials and systems shall comply with the requirements of this section.

3401.4.1 (IEBC [B] 301.2.1) Existing materials. Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the building code official to be dangerous to life, health or safety. Where such conditions are determined to be dangerous to life, health or safety, they shall be mitigated or made safe.

3401.4.2 (IEBC [B] 301.2.2) New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and alterations, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not *permit* their use in buildings of similar occupancy, purpose and location.

3401.4.3 (IEBC [B] 301.2.3) Existing seismic force-resisting systems. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of R, Ω_0, and C_d for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate or special system.

2. Delete without substitution as follows:

~~**3403.4.1 (IEBC [B] 302.4.1)Seismic.** Seismic requirements for additions shall be in accordance with this section. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of R, Ω_0 and C_d for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate or special system.~~

~~**3404.4.1 (IEBC [B] 303.4.1) Seismic.** Seismic requirements for alterations shall be in accordance with this section. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of R, Ω_0 and C_d for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate or special system.~~

3. Revise as follows:

3405.2.1 (IEBC [B] 304.2.1) Evaluation. The building shall be evaluated by a *registered design professional*, and the evaluation findings shall be submitted to the code official. The evaluation shall establish whether the damaged building, if repaired to its predamage state, would comply with the provisions of this code for wind and earthquake loads. Evaluation for earthquake loads shall be required if the substantial structural damage was caused by or related to earthquake effects or if the building is in Seismic Design Category C, D, E or F.

Wind loads for this evaluation shall be those prescribed in Section 1609. Earthquake loads for this evaluation, if required, shall be permitted to be 75 percent of those prescribed in Section 1613. ~~Values of R, Ω_0 and C_d for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of an intermediate or special system.~~

3408.4 (IEBC [B] 307.4) Change of occupancy. When a change of occupancy results in a structure being reclassified to a higher occupancy category, the structure shall conform to the seismic requirements for a new structure of the higher occupancy category. ~~Where the existing seismic force-resisting system is a type that can be designated ordinary, values of R, Ω_0 and C_d for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate or special system.~~

Exceptions:

1. Specific seismic detailing requirements of Section 1613 for a new structure shall not be required to be met where it can be shown that the level of performance and seismic safety is equivalent to that of a new structure. Such analysis shall consider the regularity, over strength, redundancy and ductility of the structure within the context of the existing and retrofit (if any) detailing provided.
2. When a change of use results in a structure being reclassified from Occupancy Category I or II to Occupancy Category III and the structure is located in a seismic map area where $S_{DS} < 0.33$, compliance with the seismic requirements of Section 1613 is not required.

Reason: This is an editorial change for clarity and simplicity. Currently the same provision appears in four separate locations. This proposal would simply replace those four occurrences with a single identical provision in an appropriate location at the top of the chapter. Specifically, the proposal does the following:

3401.4	Change the title and text of the section to suit the proposed new subsection 3401.4.3.
3401.4.3	Add this new subsection with text relocated from the other locations.
3403.4.1	Delete. New section 3401.4.3 will replace this provision.
3404.4.1	Delete. New section 3401.4.3 will replace this provision.
3405.2.1	Delete the sentence as shown. New section 3401.4.3 will replace this provision.
3408.4	Delete the sentence as shown. New section 3401.4.3 will replace this provision.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BONOWITZ-GBONOWITZ-G9-3401.4.3.DOC

G191–09/10
3401.4.1 (IEBC [B] 301.2.1)

Proponent: David Bonowitz, S.E., National Council of Structural Engineers Associations, Code Advisory Committee, Existing Buildings Subcommittee (NCSEA EBS)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3401.4.1 (IEBC [B] 301.2.1) Existing materials. Materials already in use in a building in conformance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the building code official to be ~~dangerous to life, health or safety~~ unsafe per Section 116. ~~Where such conditions are determined to be dangerous to life, health or safety, they shall be mitigated or made safe.~~

Reason: This proposal reflects the intent of approved proposal G203-07/08 and further improves the section by referencing a relevant section elsewhere.

The word "dangerous" should not be used, as it is a defined term in 2009 I-codes per G205-07/08, and its use here represents a substantive change contrary to the intent of this section. When this section was revised for 2009, the word "dangerous" was not used. Instead, the word "detrimental" was in proposal G203 because it was the already-approved term from approved with proposal S30-06/07. In the final editing process to assemble a variety of changes to Chapter 34 the word "dangerous," was substituted for 'detrimental', changing the meaning and scope of the provision.

The defined term that most closely matches the intent of the section (and probably what ICC intended with its substitution) is "unsafe" as used in section 116.

As for the last sentence, it also was not in the G203-07/08 proposal and should not have been added by ICC. While rational, it is not necessary because of the general requirement in section 116 for dealing with unsafe and dangerous conditions. Even if it is retained, it now uses the terms "dangerous" and "safe" improperly. The best correction is to simply delete the sentence.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: The revision to Section 3401.4.1 (IEBC [B] 301.2.1) was Code Correlation Committee (CCC) Item CC08-IBC-27. The item was as follows:

3401.4.1 Existing materials. Materials already in use in a building in conformance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the code official to be ~~detrimental~~ dangerous to life, health or safety. Where such conditions are determined to be dangerous to life, health or safety, they shall be mitigated or made safe.

Reason: G205-07/08 makes changes to a 2006 section that has been revised by the reformatting of G203-07/08. This location is the best fit for the language. Note that G205-07/08 also adds a definition for dangerous to correlate with the IEBC as follows:

DANGEROUS. Any building or structure or portion thereof that meets any of the conditions described below shall be deemed dangerous:

1. The building or structure has collapsed, partially collapsed, moved off its foundation, or lacks the support of ground necessary to support it.
2. There exists a significant risk of collapse, detachment, or dislodgment of any portion, member, appurtenance, or ornamentation of the building or structure under service loads.

CCC Committee Actions: Editorial and Approved

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BONOWITZ-G8-3401.4.1.DOC

G192–09/10

3401.5 (New), 3405.1.1 (IEBC [B] 301.3 (New), 304.1.1)

Proponent: David Bonowitz, S.E., National Council of Structural Engineers Associations, Code Advisory Committee, Existing Buildings Subcommittee (NCSEA EBS)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

1. Add new text as follows:

3401.5 (IEBC [B] 301.3) Dangerous conditions. The building official shall have the authority to require the elimination of conditions deemed dangerous.

(Renumber subsequent sections in IBC)

2. Delete without substitution:

~~**3405.1.1 (IEBC 304.1.1) Dangerous conditions.** Regardless of the extent of structural or nonstructural damage, the building code official shall have the authority to require the elimination of conditions deemed dangerous.~~

Reason: This proposal relocates a provision from Section 3405.1.1 to Section 3401. This provision, dealing with the elimination of dangerous conditions, should be at the top of the chapter, as proposed, because it has broad applicability throughout Chapter 34, not just in the Repairs subsection.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BONOWITZ-G10-3401.6.doc

G193–09/10

IBC 3402.1, 3405.2, 3405.2.1, 3405.2.2, 3405.2.3, 3405.3, 3405.4 (IEBC [B] 304.2, 304.2.1, 304.2.2, 304.2.3, 304.3, 304.4)

Proponent: Gary R. Searer, Wiss, Janney, Elstner Associates, Inc.

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

1. Delete without substitution:

3402.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein.

~~**SUBSTANTIAL STRUCTURAL DAMAGE.** A condition where:~~

1. ~~In any story, the vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of the structure in any horizontal direction has been reduced by more than 20 percent from its pre-damage condition; or~~
2. ~~The capacity of any vertical gravity load-carrying component, or any group of such components, that supports more than 30 percent of the total area of the structure's floor(s) and roof(s) has been reduced more than 20 percent from its pre-damage condition and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.~~

~~**3405.2 (IEBC [B] 304.2) Substantial structural damage to vertical elements of the lateral-force-resisting system.** A building that has sustained substantial structural damage to the vertical elements of its lateral-force-resisting system shall be evaluated and repaired in accordance with the applicable provisions of Sections 3405.2.1 through 3405.2.3.~~

~~**3405.2.1 (IEBC [B] 304.2.1) Evaluation.** The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the code official. The evaluation shall establish whether the damaged building, if repaired to its pre-damage state, would comply with the provisions of this code for wind and earthquake loads. Evaluation for earthquake loads shall be required if the substantial structural damage was caused by or related to earthquake effects or if the building is in Seismic Design Category C, D, E, or F.~~

~~Wind loads for this evaluation shall be those prescribed in Section 1609. Earthquake loads for this evaluation, if required, shall be permitted to be 75 percent of those prescribed in Section 1613. Values of R, Ω_0, and C_d for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of an intermediate or special system.~~

~~**3405.2.2 (IEBC [B] 304.2.2) Extent of repair for compliant buildings.** If the evaluation establishes compliance of the pre-damage building in accordance with Section 3405.2.1, then repairs shall be permitted that restore the building to its pre-damage state using materials and strengths that existed prior to the damage.~~

~~**3405.2.3 (IEBC [B] 304.2.3) Extent of repair for noncompliant buildings**. If the evaluation does not establish compliance of the pre-damage building in accordance with Section 3405.2.1, then the building shall be rehabilitated to comply with applicable provisions of this code for load combinations including wind or seismic loads. The wind loads for the repair shall be as required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be as required by the code in effect at the time of original construction or as required by this code, whichever are greater. Earthquake loads for this rehabilitation design shall be those required for the design of the pre-damage building, but not less than seventy-five percent of those prescribed in Section 1613. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.~~

~~**3405.3 (IEBC [B] 304.3) Substantial structural damage to gravity load-carrying components**. Gravity load-carrying components that have sustained substantial structural damage shall be rehabilitated to comply with the applicable provisions of this code for dead and live loads. Snow loads shall be considered if the substantial structural damage was caused by or related to snow load effects. Existing gravity load-carrying structural elements shall be permitted to be designed for live loads approved prior to the damage. Nondamaged gravity load-carrying components that receive dead, live, or snow loads from rehabilitated components shall also be rehabilitated or shown to have the capacity to carry the design loads of the rehabilitation design. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.~~

~~**3405.3.1 (IEBC [B] 304.3.1) Lateral force-resisting elements.** Regardless of the level of damage to vertical elements of the lateral force-resisting system, if substantial structural damage to gravity load-carrying components was caused primarily by wind or earthquake effects, then the building shall be evaluated in accordance with Section 3405.2.1 and, if noncompliant, rehabilitated in accordance with Section 3405.2.3.~~

~~**3405.4 (IEBC [B] 304.4) Less than substantial structural damage.** For damage less than substantial structural damage, repairs shall be allowed that restore the building to its pre-damage state using materials and strengths that existed prior to the damage. New structural members and connections used for this repair shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.~~

2. Add new text as follows:

3405.2 (IEBC [B] 304.2) Substantial damage. A building that has sustained substantial damage, as defined in Chapter 16, shall be brought into compliance with Chapter 16, except as modified as follows:

1. Existing gravity load-carrying structural elements shall be permitted to be designed for live loads approved prior to the damage.
2. The wind loads for the rehabilitation shall be as required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be as required by this code.
3. Earthquake loads for this rehabilitation design shall be those required for the design of the pre-damage building, but not less than seventy-five percent of those prescribed in Section 1613.
4. New structural members and connections required as part of the rehabilitation shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.

3405.3 (IEBC [B] 304.3) Less than substantial damage. For less than substantial damage, repairs shall be allowed that restore the building to its pre-damage state using materials and strengths that existed prior to the damage. New structural members and connections used for this repair shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.

3. Revise as follows:

3405.4 ~~3405.5~~ (IEBC [B] 304.4 ~~304.5~~) Flood hazard areas. For buildings and structures in flood hazard areas established in Section 1612.3, any repair that constitutes substantial improvement of the existing structure, as defined in Section 1612.2, shall comply with the flood design requirements for new construction, and all aspects of the existing structure shall be brought into compliance with the requirements for new construction for flood design.

For buildings and structures in flood hazard areas established in Section 1612.3, any repairs that do not constitute substantial improvement ~~or substantial damage~~ of the existing structure, as defined in Section 1612.2, are not required to comply with the flood design requirements for new construction.

Reason: This proposal is intended to reduce the dramatic and significant upgrade triggers that were introduced into Chapter 34 of the IBC during the last code cycle where none existed before. According to the *Handbook to the Uniform Building Code: An Illustrative Commentary,* upgrade triggers that add to the cost of repairs provide a disincentive to performing repairs and have been found to contribute to deterioration and net loss of existing building stock. Furthermore, requiring upgrades in order to repair a building adversely affects building owners, who must fund not only the repair but also the upgrade, which can cost many times the cost of repair-only. In a study of San Francisco's upgrade triggers, which are very similar to the language in G206 and to the language in the IEBC, the Structural Engineers Association of Northern California (SEAONC) concluded that "It is the opinion of the Study Group that these requirements probably encourage repair of damage without building permits and inspection controls to avoid the seismic trigger."

The specific wording of the upgrade triggers that were recently adopted into Chapter 34 has not really been tested in a high seismic zone; however, the City of Oakland, California adopted very similar upgrade triggers after the 1989 Loma Prieta earthquake. Although well intentioned, the Oakland upgrade triggers resulted in striking increases in the cost to repair (and upgrade) damaged buildings and had a number of unanticipated and unintended consequences: in a study of eight large buildings affected by the Oakland Earthquake Ordinance, costs to upgrade and repair averaged more than six times the cost of repair-only; engineers were unable to accurately determine "loss of structural capacity"; multi-year litigation ensued regarding two of the eight buildings studied; buildings were demolished (including a historic building); and the ordinance contributed to a major economic downturn, where damaged buildings remained vacant and unrepaired for more than a decade.

The current upgrade triggers relating to repairs in Chapter 34 are governed by the term "loss of structural capacity", but no commonly accepted definition of "loss of structural capacity" generally exists and can mean many different things to many different engineers. Linking upgrade requirements to an undefined term will necessarily increase the likelihood of disagreement between building owners, building officials, engineers, FEMA, and insurance companies; will result in difficulty in determining standard-of-care; and will dramatically increase structural engineering fees. In their study of San Francisco's upgrade triggers, which are similar to the language in Chapter 34, SEAONC concluded that "There is no consensus methodology to calculate loss of capacity. This uncertainty causes controversy and delays in critical post-earthquake situations. Experience in past earthquakes has shown that engineers can often get 'under' or 'over' any trigger set in this way as the situation demands."

There is also a lack of rationality in the current upgrade triggers. If upgrading costs only a small percentage of the repair-only scope, upgrading at a time when significant repairs are being performed makes economic sense. However, since there are no cut-offs, rational tests, or economic considerations for the additional upgrade costs, the upgrade triggers can result in wildly disproportionate upgrade costs when compared to repair-only, as shown in the Oakland Earthquake Damage Ordinance study.

Furthermore, there is no cause-and-effect relationship between the damage and the required seismic upgrades. The current language requires seismic upgrades of structures damaged by any and all causes if the substantial structural damage trigger is exceeded in moderate or high seismic zones, but this makes little if any sense. For example, assume that a building is significantly damaged by termites. Is it logical to require an engineering analysis, much less a seismic upgrade of the structure, in order to get a permit to repair the termite damage? Yet according to the current upgrade triggers, there is no necessary relationship between the cause of the damage and the requirement to seismically strengthen the damaged structure. The current structural upgrade triggers depart dramatically from the requirements to repair the electrical, mechanical, plumbing, accessibility, and fire protection systems. Given that damage to structures typically results from decay and deterioration, vehicle impact, and fires -- and typically not earthquake -- and given that fires kill many more people per year than earthquakes, the preoccupation of the current triggers with forcing seismic upgrades is completely unwarranted. In their study of upgrade triggers, SEAONC concluded, "Damage from fire is typically much different from earthquake damage and enforcement of the same repair standards seldom makes sense. Certainly fire damage is no indicator of basic seismic risk and there is no philosophical justification for triggering seismic upgrade on the same basis" and "Experience in San Francisco has shown these requirements often to be onerous and essentially unenforceable."

Even when considering earthquake hazards, the existing upgrade triggers fail the logic test: suppose that a large, design-level earthquake (the "big one") occurs in a major city. On the basis even of today's IBC design criteria, it is reasonable to expect that large numbers of buildings will experience significant damage as a result of the earthquake, even to buildings that conform or nearly conform to current code. Yet despite these damaged buildings all performing within the expectation of the current code, the proposed upgrade triggers would require further potentially massive and costly upgrades beyond the repairs already needed, because the proposed upgrade triggers do not permit any consideration of the intensity of the earthquake shaking responsible for the damage. Why would any engineer conclude that a city full of buildings that went through a major earthquake but protected life safety should be seismically upgraded? Why would any community want to mandate those upgrades? Why should the federal government, insurance companies, building owners, or taxpayers pay for those upgrades? Regarding this scenario, in their study of upgrade triggers, SEAONC concluded, "Requirements to upgrade such a large stock of buildings could put an undue economic burden on the private sector and delay regional recovery."

What this proposal does:

This proposal requires structural upgrades of existing structures only when the costs of repair-only are substantial; i.e. at least half the market value of the building. This brings the structural repair requirements into conformance with the provisions relating to repair of flood damage and helps ensure that the cost of the upgrades are not wildly disproportionate to the cost of repair-only. The proposal also helps ensure that trigger of wholesale structural upgrades is rare.

For copies of articles dealing with the problems with the Oakland Earthquake Ordinance or with the "substantial structural damage" trigger, please email me at gsearer@wje.com.

Bibliography:

"Evaluation of the Effects of Oakland's Earthquake Damage Repair Ordinance" by Gary R. Searer, Terrence F. Paret, Sigmund A. Freeman, and Una M. Gilmartin, 8th US Conference on Earthquake Engineering, San Francisco, April 2006.

Handbook to the Uniform Building Code: An Illustrative Commentary, International Conference of Building Officials (ICBO), 1998, Whittier, CA.

"Repair of Existing Structures and the International Existing Building Code" by Gary R. Searer and Terrence F. Paret, 8th US Conference on Earthquake Engineering, San Francisco, April 2006.

"Repercussions of the International Existing Building Code on the Repair of Existing Structures" by Terrence F. Paret and Gary R. Searer, ASCE Structures Congress, Forensics Congress, April 2005.

"SEAONC's SFBC Structural Damage Repair Study Group Report and Recommendations" by the Structural Engineers Association of Northern California (SEAONC), April 3, 2008.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: SEARER-G1-3405.2

G194–09/10
3405.2, 3405.4 (IEBC [B] 304.2, 304.4)

Proponent: Gary J. Ehrlich, P.E., representing National Association of Home Builders

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3405.2 (IEBC [B] 304.2) Substantial structural damage to vertical elements of the lateral-force-resisting system. A building that has sustained substantial structural damage to the vertical elements of its lateral-force-resisting system shall be evaluated and repaired in accordance with the applicable provisions of Sections 3404.2.1 through 3404.2.3.

3405.2.1 (IEBC [B] 304.2.1) Evaluation. The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the building official. The evaluation shall establish whether the damaged building, if repaired to its pre-damage state, would comply with the provisions of this code for wind and earthquake loads. Evaluation for earthquake loads shall be required if the substantial structural damage was caused by or related to earthquake effects or if the building is in Seismic Design Category ~~C,~~ D, E, or F.

Wind loads for this evaluation shall be those prescribed in Section 1609. Earthquake loads for this evaluation, if required, shall be permitted to be seventy-five percent of those prescribed in Section 1613. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of R, Ω_0, and C_d for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, ~~an~~ intermediate or special system.

3405.2.2 (IEBC [B] 304.2.2) Extent of repair for compliant buildings. If the evaluation establishes compliance of the pre-damage building in accordance with Section 3404.2.1, then repairs shall be permitted that restore the building to its pre-damage state ~~using materials and strengths that existed prior to the damage.~~ , based on material properties and design strengths applicable at the time of original construction.

3405.2.3 (IEBC [B] 304.2.3) Extent of repair for noncompliant buildings. If the evaluation does not establish compliance of the pre-damage building in accordance with Section 3404.2.1, then the building shall be rehabilitated to comply with applicable provisions of this code for load combinations, including wind or seismic loads. The wind loads for the repair shall be as required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be as required ~~by the code in effect at the time of original construction or as required~~ by this code~~, whichever are greater~~. Earthquake loads for this rehabilitation design shall be those required for the design of the pre-damage building, but not less than seventy-five percent of those prescribed in Section 1613. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.

3405.4 (IEBC [B] 304.4) Less than substantial structural damage. For damage less than substantial structural damage, repairs shall be allowed that restore the building to its pre-damage state ~~using materials and strengths that existed prior to the damage~~, based on material properties and design strengths applicable at the time of original construction. New structural members and connections used for this repair shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.

Reason: The purpose of this proposal is to clarify new language added to Chapter 34 for the evaluation of existing buildings. Despite concerns raised by NAHB and Gary Searer, as well as the IBC-Structural Committee, proposal G206-07/08 was approved at the Final Action Hearings in Minneapolis. We believe this language needs revising in order to be both enforceable by building officials and cost-effective to apply by engineers and building owners. The proposed changes are as follows:

1. Modify the seismic requirements of Section 3405.2.1. The current language can be taken to imply that only a lateral-force-resisting system which has been broken down into Ordinary, Detailed, Special and Intermediate classifications per ASCE 7 is permissible under these requirements. This would exclude light-frame shear walls, buckling-restrained braces, and a number of other systems. A similar issue with other language proposed for the IBC and the IEBC was fixed by public comments from the NCSEA Existing Building Committee. This proposal implements the change here.
2. The application of the seismic evaluation in Section 3405.2.1 is limited to SDC D through F. The original proposal includes SDC C, thus going beyond current FEMA requirements. The NCSEA EBC proposed this change as a public comment to address concerns raised by the IEBC code committee in Palm Springs in recommending the proposal for disapproval. However, they opted not to bring it forward in Minneapolis. The concerns have not gone away; in fact with the current economic climate they have gained in importance.
3. The language in Sections 3405.2 and 3405.4 is clarified. We have no idea what "using materials and strengths that existed prior to the damage" to repair a building means. However, designing a repair using the known material properties of the existing damaged element and using the codified design strengths at the time of construction makes sense from an economic standpoint. The proposed new language is consistent with similar requirements in Section 3404.2.3 for wind loads and Section 3404.3 for live loads.
4. The provision of Section 3405.2.3 specifying the wind loads to be used is revised. As building codes and design standards such as ASCE 7 are modified, some design requirements increase relative to previous editions, and some decrease. The reasons for these changes include improved wind speed modeling, new design provisions for low-rise buildings, better understanding of overall building performance, and new provisions to address specific concerns (such as overhangs, parapets, or rooftop equipment). If improved wind maps and more accurate design provisions give a reduction in wind loads under a new standard, it makes no sense to force a designer to use older provisions which may use obsolete science or implement conservative minimum design loads. This does not serve what should be the desire of all stakeholders to make the repair and rehabilitation of existing buildings economical for the owner, while at the same time doing what is needed to achieve life safety.

In summary, these changes will provide needed clarification for the building officials who must enforce this section, and enhance the ability of designers and building owners to provide cost-effective building repair and rehabilitation. In the current economic climate this is more critical than ever before. Furthermore, encouraging the repair and rehabilitation of existing structures rather than their demolition and replacement addresses "green building" concerns.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: EHRLICH-G1-3405.2.1

G195–09/10
3405.2.3 (IEBC [B] 304.2.3)

Proponent: Gary R. Searer, Wiss, Janney, Elstner Associates, Inc.

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3405.2.3 (IEBC [B] 304.2.3) Extent of repair for noncompliant buildings. If the evaluation does not establish compliance of the pre-damage building in accordance with Section 3405.2.1, then the building shall be rehabilitated to comply with applicable provisions of this code for load combinations including wind or seismic loads. The wind loads for the repair shall be as required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be as required by the code in effect at the time of original construction or as required by this code, whichever are greater.

Where the damage was caused by earthquake and the Instrumental Intensity of the earthquake at the site of the building as determined using data from the United States Geological Survey was VII or greater, the seismic design forces for the repair shall be those required for the design of the pre-damage building. Where the damage was not caused by earthquake or if the damage caused by an earthquake with an Instrumental Intensity of less than VII at the site of the building, the seismic design forces for the rehabilitation shall be those required for the design of the pre-damage building, but not less than seventy-five percent of those prescribed in Section 1613.

~~Earthquake loads for this rehabilitation design shall be those required for the design of the pre-damage building, but not less than seventy-five percent of those prescribed in Section 1613.~~ New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.

Reason: This change is intended to make seismic upgrades of the lateral force resisting system after a large earthquake logical. Suppose that a large, design-level earthquake (the "big one") occurs in a major city. On the basis even of today's IBC design criteria, it is reasonable to expect that large numbers of buildings will experience significant damage as a result of the earthquake, even to buildings that conform or nearly conform to current code. Yet despite these damaged buildings all performing within the expectation of the current code, the proposed upgrade triggers would require further potentially massive and costly upgrades beyond the repairs already needed, because the proposed upgrade triggers do not permit any consideration of the intensity of the earthquake shaking responsible for the damage. Why would any engineer conclude that a city full of buildings that went through a major earthquake but protected life safety should be seismically upgraded? Why would any community want to mandate those upgrades? Why should the federal government, insurance companies, building owners, or taxpayers pay for those upgrades? Regarding this scenario, in their study of upgrade triggers, SEAONC concluded, "Requirements to upgrade such a large stock of buildings could put an undue economic burden on the private sector and delay regional recovery."

What this proposal does:
This proposal requires seismic upgrades of existing structures if the damage was not the result of earthquake activity or if the damage was caused by earthquake but was disproportionate to the intensity of the earthquake (i.e. significant structural damage when the Instrumental Intensity of the earthquake at the site was less than VII, as measured by the United States Geological Survey).

If an earthquake had a moderate or heavy damage potential at a particular site (Instrumental Intensity of VII or greater) and a structure at that site experienced substantial structural damage, this would not necessarily be unexpected even for a new building and seismic upgrade of the whole building to current code (or close to current code) would generally not be warranted. If, on the other hand, the Instrumental Intensity of say V or VI (very light or light potential damage) and significant structural damage occurred, then the structure may be overly susceptible to earthquake damage and strengthening is arguably prudent.

For copies of articles dealing with the problems with the Oakland Earthquake Ordinance or with the "substantial structural damage" trigger, please email me at gsearer@wje.com.

Bibliography:

"Evaluation of the Effects of Oakland's Earthquake Damage Repair Ordinance" by Gary R. Searer, Terrence F. Paret, Sigmund A. Freeman, and Una M. Gilmartin, 8th US Conference on Earthquake Engineering, San Francisco, April 2006.

Handbook to the Uniform Building Code: An Illustrative Commentary, International Conference of Building Officials (ICBO), 1998, Whittier, CA.

"Repair of Existing Structures and the International Existing Building Code" by Gary R. Searer and Terrence F. Paret, 8th US Conference on Earthquake Engineering, San Francisco, April 2006.

"Repercussions of the International Existing Building Code on the Repair of Existing Structures" by Terrence F. Paret and Gary R. Searer, ASCE Structures Congress, Forensics Congress, April 2005.

"SEAONC's SFBC Structural Damage Repair Study Group Report and Recommendations" by the Structural Engineers Association of Northern California (SEAONC), April 3, 2008.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: SEARER-G2-3405.2.3

G196–09/10
3405.5 (IEBC [B] 304.5)

Proponent: David Bonowitz, SE, National Council of Structural Engineers Associations, Code Advisory Committee, Existing Buildings Subcommittee (NCSEA EBS)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3405.5 (IEBC [B] 304.5) Flood hazard areas. For buildings and structures in flood hazard areas established in Section 1612.3, any repair that constitutes substantial improvement of the *existing structure*, as defined in Section 1612.2, shall comply with the flood design requirements for new construction, and all aspects of the *existing structure* shall be brought into compliance with the requirements for new construction for flood design.

For buildings and structures in flood hazard areas established in Section 1612.3, any repairs that do not constitute substantial improvement ~~or substantial damage~~ of the *existing structure*, as defined in Section 1612.2, are not required to comply with the flood design requirements for new construction.

Reason: ICC added the words "or substantial damage" in the course of editing 2006 section 3403.1.2 per proposal G203-07/08. G203 split section 3403 into three sections, so the flood provision now occur three times, each slightly different. But the words "or substantial damage" need not be added. The Code Correlation Committee has removed the text from Sections 3403.2 and 3404.2.

- 3405.5. ICC should not have added the words "or substantial damage," which make no sense in this context. Repairs do not constitute damage.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: The Code Correlation Committee editorially corrected Section 3405.5 of the IBC (304.5 IEBC) to read as follows:

3405.5 (IEBC [B] 304.5) Flood hazard areas. For buildings and structures in flood hazard areas established in Section 1612.3, any repair that constitutes substantial improvement of the *existing structure*, as defined in Section 1612.2, shall comply with the flood design requirements for new construction, and all aspects of the *existing structure* shall be brought into compliance with the requirements for new construction for flood design.

For buildings and structures in flood hazard areas established in Section 1612.3, any repairs that do not constitute substantial improvement or repair of substantial damage of the *existing structure*, as defined in Section 1612.2, are not required to comply with the flood design requirements for new construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BONOWITZ-G2-3403.2.DOC

G197–09/10
3408.4 (IEBC [B] 307.4)

Proponent: David Bonowitz, SE, National Council of Structural Engineers Associations, Code Advisory Committee, Existing Buildings Subcommittee (NCSEA EBS)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3408.4 (IEBC [B] 307.4) ~~Change of occupancy~~ Seismic (IEBC Structural). When a change of occupancy results in a structure being reclassified to a higher occupancy category, the structure shall conform to the seismic requirements for a new structure of the higher occupancy category. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of R,Ω_0 and C_d for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate or special system.

Exceptions:

1. Specific seismic detailing requirements of Section 1613 for a new structure shall not be required to be met where ~~it can be shown that the level of performance and seismic safety is~~ the seismic performance is shown to be equivalent to that of a new structure. ~~Such analysis~~ A demonstration of equivalence shall consider the regularity, overstrength, redundancy and ductility of the structure ~~within the context of the existing and retrofit (if any) detailing provided~~.
2. When a change of use results in a structure being reclassified from Occupancy Category I or II to Occupancy Category III and the structure is located in a seismic map area where $S_{DS} < 0.33$, compliance with the seismic requirements of Section 1613 is not required.

Reason: This proposal is editorial, for consistency. The Code Correlation Committee approved other editorial revisions to related provisions in Chapter 34 (Chapter 3 of the IEBC). This change to section 3408.4 has two elements:

1. The title change is an editorial revision proposed so that the name of the subsection is more appropriate and does not duplicate the name of the larger section.
2. The revision to the text of Exception 1 is an editorial clarification.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BONOWITZ-G1B-CHPT 34.doc

G198–09/10
3410.1 (IEBC [B] 309.1)

Proponent: Patrick Vandergriff, Vandergriff Code Consulting Services, representing Modular Building Institute

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IBC GENERAL CODE COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THE IBC GENERAL CODE COMMITTEE.

PART I – IBC GENERAL

Revise as follows:

3410.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures or Chapter 12 of the *International Existing Building Code*.

PART II – IEBC

Revise as follows:

[B] 309.1 Conformance. Structures moved into or within the jurisdiction shall comply with the *International Building Code* for new structures or with Chapter 12 of this code.

Reason: Several proposed code changes deal with the issues relative to modular construction in relation to the relocation of other structures or the use of temporary structures defined as tents, membrane structures and similar structures. The proposed language states compliance with the code and thereby requires compliance but allows for other language to be applied that may be specific to temporary and modular buildings.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: These two code sections are typically linked such that changes to Sec. 3410.1 of the IBC would automatically change Sec. 309.1, but the nature of the proposed change, it was felt it would be clearer to show how each code would appear as the result of this proposal.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IEBC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: VANDERGRIFF-G6-3410.1.doc

G199–09/10
3410.1(IEBC [B] 309.1), 3410.2 through 3410.8 (New)

Proponent: Patrick Vandergriff, Vandergriff Code Consulting Services, representing Modular Building Institute

1. Delete without substitution:

~~**3410.1 (IEBC [B] 309.1) Conformance.** Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.~~

2. Add new text as follows:

3410.1 General. The relocation of any building to another location where the effects of wind, snow, flood or seismic provisions is greater than the percentage of increased loads allowed by this section relocated buildings shall comply with the requirements of Sections 3410.2 and Section 3410.8.

3410.2 Location on the lot. The building shall be located on the lot in accordance with the requirements of this code, or the *International Residential Code,* as applicable.

3410.3 Foundation. The foundation system of relocated buildings shall comply with Chapter 18, or the *International Residential Code* as applicable.

Exception: Foundations for modular structures are permitted to be of any materials allowed by the code and installed in accordance with either:

1. The manufacturers design requirements; or
2. An approved engineered design.

3410.3.1 Connection to the foundation. The connection of the relocated building to the foundation shall comply with Chapter 18, or the *International Residential Code,* as applicable.

3410.4 Wind loads. Buildings shall comply with Section 1609, or *International Residential Code* wind provisions, as applicable.

Exceptions:

1. Detached one- and two-family dwellings and Group U occupancies where wind loads at the new location are not higher than those at the previous location.
2. Structural elements whose stress is not increased by more than 5 percent.

3410.5 Seismic loads. Buildings shall comply with Section 1613, or *International Residential Code* seismic provisions, as applicable, to the new location.

Exceptions:

1. Structures in Seismic Design Categories A and B and detached one- and two-family dwellings in Seismic Design Categories A, B, and C where the seismic loads at the new location are not higher than those at the previous location.
2. Structural elements whose stress is not increased by more than 5 percent.

3410.6 Snow loads. Structures shall comply with Section 1608, or *International Residential Code* snow loads, as applicable, where snow loads at the new location are higher than those at the previous location.

Exception: Structural elements whose stress is not increased by more than 5 percent.

3410.7 Flood hazard areas. If relocated or moved into a *flood hazard area*, structures shall comply with Section 1612.

3410.8 Required inspection and repairs. The building official shall be authorized to inspect, or to require approved professionals to inspect at the expense of the owner, the various structural parts of a relocated building to verify that structural components and connections have not sustained structural damage. Any repairs required by the building official as a result of such inspection shall be made prior to the final approval.

Reason: This corresponds to several code change proposals establishing more clear definition and use issue with modular construction. This language provides the same language of the International Existing Building Code, Chapter 12 provisions dealing with the relocation of structures.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: This text is a copy of IEBC Chapter 12. If this proposal is approved, the Code Correlation Committee will decide if IEBC or IBC will control these provisions.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: VANDERGRIFF-G7-3410.1 NEW.doc

G200–09/10
3411.8.8 (IEBC [B] 310.8.8)

Proponent: Karen L. Braitmayer, FAIA, Studio Pacifica, Ltd, representing self

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Revise as follows:

3411.8.8 (IEBC [B] 310.8.8) Type A dwelling or sleeping units. Where more than 20 Group R-2 *dwelling* or sleeping units are being altered or added, the requirements for Section 1107 for Type A units apply only to the quantity of spaces being altered or added.

Reason: This proposal retains language that has been in the IBC since 2003. Loss of this language in the 2009 reduces the percentage of Type A housing stock required by IBC.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: The correlative text in the International Existing Building Code is in Sections 605.1.9 and 706.4.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BRAITMAYER-G1-3411.8.8

G201–09/10
3412.6.2.1(IEBC [B] 1301.6.2.1)

Proponent: Maureen Traxler representing City of Seattle, WA, Seattle Dept of Planning & Development

Revise as follows:

3412.6.2.1 (IEBC [B] 1301.6.2.1) Allowable area formula. The following formula shall be used in computing allowable area:

~~$A_a = (1 + I_f + I_s) \times A_t$~~

$$A_a = \{A_t + [A_t \times I_f] + [A_t \times I_s]\}$$ **(Equation 34-2) (IEBC Equation 13-3)**

where:

A_a = Allowable building area per story (square feet).
A_t = Tabular building area per story in accordance with Table 503 (square feet) of the *International Building Code*.
I_s = Area increase factor due to for sprinklers protection as calculated in accordance with (Section 506.3)
I_f = Area increase factor due to for frontage as calculated in accordance with (Section 506.2).

Reason: The purpose of the proposal is to coordinate the equations used to calculate area in the IEBC with the IBC. Both equations are intended to result in the same answer, and the definitions for the IEBC equation reference the IBC. However, the two codes use different characters, adding confusion.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: TRAXLER-G1.1-1301.6.2.1

G202–09/10
3412.6.14, 3412.6.14.1 (IEBC [B] 1301.6.14, 1301.6.14.1)

Proponent: Brian Black, BDBlack Codes, Inc., representing National Elevator Industry, Inc. (NEII)

Revise as follows:

3412.6.14 (IEBC [B] 1301.6.14) Elevator control. Evaluate the passenger elevator equipment and controls that are available to the fire department to reach all occupied floors. Emergency recall and in-car operation of elevators ~~recall controls~~ shall be provided in accordance with the *International Fire Code*. Under the categories and occupancies in Table 3412.6.14, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.14, Elevator Control, for fire safety, means of egress and general safety. The values shall be zero for a single-story building.

TABLE 3412.6.14 (IEBC [B] TABLE 1301.6.14)
ELEVATOR CONTROL VALUES

ELEVATOR TRAVEL	CATAGORIES			
	a	b	c	d
Less than 25 feet of travel above or below the primary level of elevator access for emergency fire-fighting or rescue personnel	-2	0	0	+2
Travel of 25 feet or more above or below the primary level of elevator access for emergency fire-fighting or rescue personnel	-4	NP	0	+4

For SI: 1 foot = 304.8 mm.

3412.6.14.1 (IEBC [B] 1301.6.14.1) Categories. The categories for elevator controls are:

1. Category a — No elevator.
2. Category b—Any elevator without Phase I emergency recall operation and Phase II ~~recall~~ emergency in-car operation.
3. Category c — All elevators with Phase I emergency recall operation and Phase II ~~recall~~ emergency in-car operation as required by the *International Fire Code*.
4. Category d—All meet Category c; or Category b where permitted to be without Phase I emergency recall operation and Phase II emergency in-car operation ~~recall~~; and at least one elevator that complies with new construction requirements serves all occupied floors.

Reason: Correct terminology to correspond with Section 3003.2 and ASME A17.1/CSA B44.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: BLACK-G4-3412.6.14.doc

G203–09/10
3412.6.19 (IEBC [B] 1301.6.19)

Proponent: David S. Collins, FAIA, The Preview Group, Inc., The American Institute of Architects

Revise as follows:

3412.6.19 (IEBC [B] 1301.6.19) Incidental accessory occupancy. Evaluate the protection of incidental accessory occupancies in accordance with Section 508.2.5. Do not include those occupancies where this code requires suppression throughout the buildings, including covered mall buildings, high-rise buildings, public garages and unlimited area buildings, or where Section 508.1 of the code allows the occupancies to be an accessory use, or mixed use separated or nonseparated. Assign the lowest score from Table 3412.6.19 for the building or floor area being evaluated and enter that value into Table 3412.7 under Safety Parameter 3412.6.19, Incidental Accessory Occupancy, for fire safety, *means of egress* and general safety. If there are no specific occupancy areas in the building or floor area being evaluated, the value shall be zero.

Reason: The application of the incidental accessory occupancy section of the code was not intended to be applied to accessory or mixed use conditions. This change will clarify that when considering a mixed use condition, Chapter 34 applies Section 3412.6 to such conditions, not Section 3412.6.19. Section 508.1 allows uses to be either considered an accessory use, mixed use or incidental accessory.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: COLLINS-G7-3412.6.19

G204–09/10

Appendix L (New); IRC Appendix L

Proponent: John England, MCO, England Enterprises Inc., representing Cities of Beaufort and Hardeeville, SC.

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC GENERAL

Add new appendix as follows:

APPENDIX L
PERMIT FEES

(The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.)

L101.1 Schedule of permit fees. On buildings, structures, signs, pools, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required, in accordance with Table L101.1.

TABLE L101.1
PERMIT FEE SCHEDULE

TOTAL VALUATION	FEE
$1 to $ 500	$50.00
$501 to $2,000	$50 for the first $500; plus $3 for each additional $ 100 or fraction thereof, to and including $2,000.
$2,001 to $40,000	$69 for the first $2,000; plus $11 for each additional $1,000 or fraction thereof, to and including $40,000
$40,001 to $100,000	$487 for the first $40,000; plus $9 for each additional $1,000 or fraction thereof, to and including $100,000
$100,001 to $500,000	$1,027 for the first $100,000; plus $7 for each additional $1,000 or fraction thereof, to and including $500,000
$500,001 to $1,000,000	$3,827 for the first $500,000; plus $5 for each additional $1,000 or fraction thereof, to and including $1,000,000
$1,000,001 to $5,000,000	$6,327 for the first $1,000,000; plus $3 for each additional $1,000 or fraction thereof, to and including $5,000,000
$5,000,001 and over	$18,327 for the first $ 5,000,000; plus $1 for each additional $1,000 or fraction thereof

L101.2 Plan review fees: One half of the require permit fee per Table L101.1, $75.00 minimum, shall be paid at time of submission of plans and specifications.

Exception: When no plan review is required by the building official, no fee shall be charged.

L101.3 Electrical, plumbing, mechanical, and gas permits fees. Electrical, plumbing, mechanical, and gas permit fees shall be based on Table L101.1.

Exception: Where the value of the electrical, plumbing, mechanical, and gas trades are included in the total construction cost as stated in Section 109.3, there shall be no additional charge for the permit.

L101.4 Re-inspection fees. $50.00 per trade per visit shall be charged to the contractor or homeowner. Re-inspection fees shall be paid in advance prior to the re-inspection. It shall be at the determination of the Building Official to waive re-inspection fees under certain condition.

L101.5 Building permit valuations. The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. If, in the opinion of the building official, the valuation is underestimated on the application, the permit shall be denied, unless the applicant can show detailed estimates to meet the approval of the building official. Final building permit valuation shall be set by the building official. The BVD (Building Valuation Data) published every 6 months by ICC (International Code Council) shall be used in help determining the construction value.

L101.6 Work commencing before permit issuance. Any person who commences any work on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits the fees shall be doubled in accordance with Section 109.4

PART II – IRC BUILDING AND ENERGY

Add new appendix as follows:

APPENDIX L
PERMIT FEES

(The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.)

L101.1 Schedule of permit fees. On buildings, structures, signs, pools, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required, in accordance with Table L101.1.

L101.2 Plan review fees:
One half of the require permit fee per Table L101.1, $75.00 minimum, shall be paid at time of submission of plans and specs.

Exception: When no plan review is required by the building official, no fee shall be charged.

L101.3 Electrical, plumbing, mechanical, and gas permits fees. Electrical, plumbing, mechanical, and gas permit fees shall be based on Table L101.1

Exception: Where the value of the electrical, plumbing, mechanical, and gas trades are included in the total construction cost as stated in sections R108.3, there shall be no additional charge for the permit.

L101.4 Re-inspection Fees. $50.00 per trade per visit shall be charged to the contractor or homeowner. Re-inspection fees shall be paid in advance prior to the re-inspection. It shall be at the determination of the Building Official to wave re-inspection fees under certain condition.

L101.5 Building permit valuations. The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. If, in the opinion of the building official, the valuation is underestimated on the application, the permit shall be denied, unless the applicant can

show detailed estimates to meet the approval of the building official. Final building permit valuation shall be set by the building official. The BVD (Building Valuation Data) published every 6 months by ICC (International Code Council) shall be used in help determining the construction value.

L101.6 Work commencing before permit issuance. Any person who commences any work on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits the fees shall be doubled in accordance with Section R108.6.

TABLE L101.1
PERMIT FEE SCHEDULE

TOTAL VALUATION	FEE
$1 to $ 500	$50.00 ~~$24.00~~
$501 to $2,000	$50 ~~$24~~ for the first $500; plus $3 for each additional $ 100 or fraction thereof, to and including $2,000.
$2,001 to $40,000	$69 for the first $2,000; plus $11 for each additional $1,000 or fraction thereof, to and including $40,000
$40,001 to $100,000	$487 for the first $40,000; plus $9 for each additional $1,000 or fraction thereof, to and including $100,000
$100,001 to $500,000	$1,027 for the first $100,000; plus $7 for each additional $1,000 or fraction thereof, to and including $500,000
$500,001 to $1,000,000	$3,827 for the first $500,000; plus $5 for each additional $1,000 or fraction thereof, to and including $1,000,000
$1,000,001 to $5,000,000	$6,327 for the first $1,000,000; plus $3 for each additional $1,000 or fraction thereof, to and including $5,000,000
$5,000,001 and over	$18,327 for the first $ 5,000,000; plus $1 for each additional $1,000 or fraction thereof

Reason: Many new jurisdictions coming on line need some help in determining permit fees. The table was in the IRC and should also be in the IBC.

Cost Impact: The code change proposal will not increase the cost of construction.

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC R/E

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: ENGLAND-G7-APPENDIX L and (ENGLAND-RB1 APPENDIX L).doc

G205–09/10
Appendix L (New); Chapter 35

Proponent: Steve Ferguson, American Society of Heating, Refrigerating, and Air-Conditioning Engineers, representing American Society of Heating, Refrigeration, Heating & Air-Conditioning (ASHRAE)

Add new appendix as follows:

APPENDIX L
HIGH-PERFORMANCE GREEN BUILDINGS

The provisions in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION L101
GENERAL

L101.1 Scope. The provisions of this appendix are applicable to all buildings except those within the scope of the IRC and Group R-2, R-3 and R-4 buildings three stories or less in building height above grade plane.

L101.2 Intent. The intent of this appendix is to provide mandatory requirements for the construction, alteration and renovation of and addition to buildings within its scope. Such requirements are intended to conserve energy and natural resources and lessen, overall, the negative impact on the environment from buildings and the occupation and use of buildings.

L101.3 Requirements. The construction, alteration, and renovation of and addition to buildings shall comply with this code, ASHRAE/IES/USGBC 189.1, the *International Fire Code, International Wildland Urban Interface Code, International Zoning Code, International Mechanical Code, International Fuel Gas Code, International Plumbing Code, International Private Sewage Disposal code, International Property Maintenance Code, International Energy Conservation Code, International Existing Buildings Code* and NFPA 70.

SECTION L102 (Chapter 35)
REFERENCED STANDARDS

ASHRAE 189.1–200X	Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings

Reason: The purpose of this proposed change is to add a new appendix to the IBC.

The proposed appendix will reference ASHRAE/USGBC/IESNA Standard 189.1 for High-Performance Green Buildings Except Low-Rise Residential Buildings and this will provide jurisdictions with a newly-developed, consensus-based standard that can be used to develop local code requirements specific to green buildings or that could be applied to all buildings covered by the standard.

Green buildings are currently being designed and constructed nationwide using different programs guidelines, rating systems, and standards that are not develop using consensus-based methods. ASHRAE's standard was developed under the direction of ASHRAE members and in conjunction with representatives from other nationally-recognized organizations with experience and expertise in this field. This standard will provide a publicly-reviewed resource for local jurisdictions to use in the administration of green building construction. Several state and local jurisdictions already require, or are considering a requirement, that building projects within their jurisdiction be designed and constructed according to "green building" principles. In many cases, limited guidance is given as to the criteria to be used to determine if the building project meets the expectations. Standard 189.1 provides a publicly-reviewed resource for local jurisdictions to adopt and use in the administration of green building construction.

More information to come after the SPC 189.1 meeting on June 24, 2009.

Cost Impact: The code change proposal will increase the cost of construction.

Analysis: A review of the standard proposed for inclusion in the code, ASHRAE 189.1, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: FERGUSON-G1-APPENDIX L NEW

G206–09/10
Appendix L (New)

Proponent: Dwayne Garriss, Georgia State Fire Marshal's Office – Centers for Medicare and Medicaid Services Life Safety Administration

Add new appendix as follows:

APPENDIX L
CMS FORMS

The provisions contained in this appendix are not mandatory unless specifically adopted or referenced in an adopting ordinance.

SECTION L101
GENERAL

L101.1 Scope. The provisions of this appendix apply to all facilities where a provider or supplier has voluntarily applied for certification or accreditation in the Medicare/Medicaid program meeting the requirements of and approved by CMS as specified in 42 CFR. The survey forms in this appendix are used for all Life Safety Compliance surveys (initial and recertification) of facilities subject to Survey and Certification inspections for Medicare/Medicaid certification. This includes, but is not limited to, Skilled Nursing Facilities (SNFs), Nursing Facilities (NFs) whether freestanding, distinct parts, or dually certified, Intermediate Care Facilities for Mentally Retarded (ICFs/MR), Ambulatory Surgical Centers (ASC), inpatient Hospice facilities, Program for All inclusive Care for the Elderly (PACE) facilities, Critical Access Hospitals (CAH), Psychiatric and General Hospitals, including validation surveys of accredited facilities. These survey forms also apply to complaint investigations.

L101.2 Purpose. Certification is a recommendation made by the State survey agency on the compliance of providers and suppliers with the conditions of participation, requirements for Skilled Nursing Facilities (SNFs), Nursing Facilities (NFs) whether freestanding, distinct parts, or dually certified, Intermediate Care Facilities for Mentally Retarded (ICFs/MR), Ambulatory Surgical Centers (ASC), inpatient Hospice facilities, Program for All inclusive Care for the Elderly (PACE) facilities, Critical Access Hospitals (CAH), Psychiatric and General Hospitals. In order to safeguard the health, welfare and safety of individuals served within a facility, it is imperative that a facility not only attain substantial compliance in each area of identified deficiencies, but that it maintain/remain in continuous compliance. The provisions established in this appendix provided the minimum standards for new facilities which voluntarily seek certification or accreditation in the Medicare/Medicaid program. These minimum standards do exceed some of the minimum occupancy requirements established within the body of this Code which are necessary to meet the requirements of the Centers for Medicare and Medicaid Services as specified in 42 CFR.

SECTION L102
DEFINITIONS AND EQUIVALENCIES

L102.1 Definitions. For the purposes of this appendix chapter, the terms, phrases and words listed in this section and their derivatives shall have the indicated meanings.

ACCREDITED PROVIDER or SUPPLIER. A provider or supplier that has voluntarily applied for and has been accredited by a national accreditation program meeting the requirements of and approved by CMS in accordance with Section 488.5 or Section 488.6.

CMS. The Centers for Medicare & Medicaid Services. Formerly known as the Health Care Financing Administration (HCFA), which is the federal agency responsible for administering the Medicare and Medicaid programs.

L102.2 Construction type equivalencies. For the purposes of this appendix chapter, Table L102.2 shall be utilized for cross referencing the various construction types for use in the applicable CMS forms which are in the terms of the NFPA 220, entitled, "Standard on Types of Building Construction."

TABLE L102.2
CONVERSION TO NFPA 220 CONSTRUCTION TYPES USED ON CMS FORMS

Conversion Table to NFPA 220 Construction Types for CMS Forms										
NFPA 220	Type I 443	Type I 332	Type II 222	Type II 111	Type II 000	Type III 211	Type III 200	Type IV 2HH	Type V 111	Type V 000
SBC	I	II	----	IV 1HR	IV UNP	V 1HR	V UNP	III	VI 1HR	VI UNP
UBC	---	I FR	II FR	II-1HR	II N	III-1HR	III N	IV HT	V 1HR	V-N
B/NBC	1A	1B	2A	2B	2C	3A	3B	4	5A	5B
IBC	---	IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB

SECTION L103
APPLICATION FORMS

L103.1 Application. The following forms shall be used to verify substantial compliance with regards to Life Safety for the Department of Health and Human Services Centers for Medicare and Medicaid Services.

1. Form CMS-2786M entitled, Worksheet for Rating Residents.

2. Form CMS-2786R entitled, "FIRE SAFETY SURVEY REPORT 2000 CODE – HEALTH CARE Medicare – Medicaid"

3. Form CMS-2786S entitled, "FIRE SAFETY SURVEY REPORT SHORT FORM Medicare – Medicaid"

4. Form CMS-2786T entitled, "FIRE/SMOKE ZONE* EVALUATION WORKSHEET FOR HEALTH CARE FACILITIES"

5. Form CMS-2786U entitled, "FIRE SAFETY SURVEY REPORT – AMBULATORY SURGICAL CENTERS Medicare"

6. Form CMS-2786V entitled, "FIRE SAFETY SURVEY REPORT - 2000 LIFE SAFETY CODE Intermediate Care Facilities for the Mentally Retarded – SMALL"

7. Form CMS-2786W entitled, "FIRE SAFETY SURVEY REPORT - 2000 LIFE SAFETY CODE Intermediate Care Facilities for the Mentally Retarded – LARGE"

8. Form CMS-2786X entitled, "FIRE SAFETY SURVEY REPORT - 2000 LIFE SAFETY CODE Intermediate Care Facilities for the Mentally Retarded - APARTMENT HOUSE"

9. Form CMS-2786Y entitled, "FIRE SAFETY SURVEY REPORT - 2000 LIFE SAFETY CODE Intermediate Care Facilities for the Mentally Retarded - SMALL FSES"

Form Approved
OMB No. 0938-0242

FIRE SAFETY SURVEY — 2000 LIFE SAFETY CODE

F-1 SIDE 1

Worksheet for Rating Residents

Complete one Worksheet for each resident.
Read Instruction Manual before filling out this form.
Base ratings on commonly observed examples of poor performance.

Resident's Name	Rater
Facility	Date

Write any explanatory remarks you may wish to make here:

Surveyor *(Signature)*	Title	Date
Surveyor ID		
Fire Authority Official *(Signature)*	Title	Date

Form Approved
OMB No. 0938-0242

COMPLETE OTHER SIDE FIRST

F-1 SIDE 2 Worksheet for Rating Residents

Read Instruction Manual before filling out this form.
Base ratings on commonly observed examples of poor performance.

F-1A Rating the Resident on the Risk Factors

Rating the resident on each of the factors below by checking the one circle in each risk factor that best describes the resident. For the first six factors, write the scores for the circles you checked in the appropriate score boxes in the far right column. For "response to fire drills," write the three checked scores in the large circles. Write the sum of the 3 scores in the large box on the right.

					SCORE BOXES
I. Risk of Resistance (Check only one)	Minimal Risk ◯ score = 0	Risk of Mild Resistance ◯ score = 6	Risk of Strong Resistance ◯ score = 20		
II. Impaired Mobility (Check only one)	Self-Starting ◯ score = 0	Slow ◯ score = 3	Needs Limited Assistance ◯ score = 6	Needs Full Assistance or Very Slow ◯ score = 20	
III. Impaired Consciousness (Check only one)	No Significant Risk ◯ score = 0	Partially Impaired ◯ score = 6	Totally Impaired ◯ score = 20		
IV. Need for Extra Help (Check only one)	Needs at Most One Staff ◯ score = 0	Needs Limited Assistance from 2 Staff ◯ score = 30	Needs Full Assistance from 2 Staff ◯ score = 40		
V. Response to Instructions (Check only one)	Follows Instructions ◯ score = 1	Requires Supervision ◯ score = 3	Requires Considerable Attention/May Not Respond ◯ score = 10		
VI. Waking Response to Alarm (Check only one)	Response Probable ◯ score = 0	Response Not Probable ◯ score = 6			
VII. Response to Fire Drills (Without Guidance or Advice from Staff)	Initiates and Completes Evacuation Promptly	Yes ◯ score = 0	No ◯ score = 8	◯	
	Chooses and Completes Back-up Strategy	Yes ◯ score = 0	No ◯ score = 4	+ ◯	
	Stays at Designated Location	Yes ◯ score = 0	No ◯ score = 6	+ ◯	

SUM OF THESE THREE ITEMS

F-1B Finding the Resident's Overall Need For Assistance

Compare the numbers in the 7 score boxes you have filled in.
Take the one highest score from the score boxes and write it in this box:

EVACUATION ASSISTANCE SCORE

FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER K1	FACILITY NAME	SURVEY DATE * K4

K6 DATE OF PLAN APPROVAL

K3 MULTIPLE CONSTRUCTION

TOTAL NUMBER OF BUILDINGS _____

NUMBER OF THIS BUILDING _____

☐

A BUILDING
B WING
C FLOOR
D APARTMENT UNIT

LSC FORM INDICATOR

Health Care Form		
12	2786R	2000 EXISTING
13	2786R	2000 NEW

ASC Form		
14	2786U	2000 EXISTING
15	2786U	2000 NEW

ICF/MR Form		
16	2786V, W, X	2000 EXISTING
17	2786V, W, X	2000 NEW

* K7 ☐ SELECT NUMBER OF FORM USED FROM ABOVE

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)

K8: ☐ 1 PROMPT 2 SLOW 3 IMPRACTICAL

LARGE

K8: ☐ 4 PROMPT 5 SLOW 6 IMPRACTICAL

APARTMENT HOUSE

K8: ☐ 7 PROMPT 8 SLOW 9 IMPRACTICAL

(Check if K29 or K56 are marked as not applicable in the 2786 M, R, T, U, V, W, X and Y.)

K29: ☐ K56: ☐

ENTER E – SCORE HERE

K5: ☐ e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON *(Check all that apply)*

A1. ☐ (COMP. WITH ALL PROVISIONS)

A2. ☐ (ACCEPTABLE POC)

A3. ☐ (WAIVERS)

A4. ☐ (FSES)

A5. ☐ (PERFORMANCE BASED DESIGN)

FACILITY DOES NOT MEET LSC

B. ☐

K0180

A. ☐ FULLY SPRINKLERED (All required areas are sprinklered)

B. ☐ PARTIALLY SPRINKLERED (Not all required areas are sprinklered)

C. ☐ NONE (No sprinkler system)

* MANDATORY

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

2000 CODE

Form Approved
OMB No. 0938-0242

FIRE SAFETY SURVEY REPORT 2000 CODE - HEALTH CARE
Medicare – Medicaid

1. (A) PROVIDER NUMBER K1

1. (B) MEDICAID I.D. NO. K2

PART I — Life & Safety Code, New and Existing
PART IV — Waiver Recommendation Form

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY

2. (A) MULTIPLE CONSTRUCTION (BLDGS) K3
A. BUILDING _____
B. WING _____
C. FLOOR _____

2. (B) ADDRESS OF FACILITY (STREET, CITY, STATE, ZIP CODE)

A. ☐ Fully Sprinklered (All required areas are sprinklered)
B. ☐ Partially Sprinklered (Not all required areas are sprinklered)
C. ☐ None (No sprinkler system) K3160

3. SURVEY FOR
☐ MEDICARE ☐ MEDICAID

4. DATE OF SURVEY K4

DATE OF PLAN APPROVAL K5

SURVEY UNDER K7
5. ☐ 2000 EXISTING 6. ☐ 2000 NEW

5. SURVEY FOR CERTIFICATION OF
1. ☐ HOSPITAL 2. ☐ SKILLED/NURSING FACILITY 4. ☐ ICF/MR UNDER HEALTH CARE 5. ☐ HOSPICE

IF "2" OR "5" ABOVE IS MARKED, CHECK APPROPRIATE ITEM(S) BELOW
1. ☐ ENTIRE FACILITY 2. ☐ DISTINCT PART OF (SPECIFY)_____

3. ☐ IF DISTINCT PART OF HOSPITAL, IS HOSPITAL ACCREDITED BY JCAHO/ACA?
a. ☐ YES b. ☐ NO

6. BED COMPOSITION

a. TOTAL NO. OF BEDS IN THE FACILITY _____	b. NUMBER OF HOSPITAL BEDS CERTIFIED FOR MEDICARE ____	c. NUMBER OF SKILLED BEDS CERTIFIED FOR MEDICARE _____	d. NUMBER OF SKILLED BEDS CERTIFIED FOR MEDICAID _____	e. NUMBER OF NF or ICF/MR BEDS CERTIFIED FOR MEDICAID _____

7. A. ☐ THE FACILITY MEETS, BASED UPON (CHECK ALL APPROPRIATE BOXES)
1. ☐ COMPLIANCE WITH ALL PROVISIONS 2. ☐ ACCEPTANCE OF A PLAN OF CORRECTION 3. ☐ RECOMMENDED WAIVERS 4. ☐ FSES 5. ☐ PERFORMANCE BASED DESIGN
B. ☐ THE FACILITY DOES NOT MEET THE STANDARD
K9

SURVEYOR *(Signature)*	TITLE	OFFICE	DATE
SURVEYOR ID K10			
FIRE AUTHORITY OFFICIAL *(Signature)*	TITLE	OFFICE	DATE

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-0242. The time required to complete this information collection is estimated to average 5 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to CMS, Attn: PRA Reports Clearance Officer, 7500 Security Boulevard, Baltimore, Maryland 21244-1850.

Form CMS-2786R (xx/xx) Previous Versions Obsolete

Page 1

ID PREFIX		MET	NOT MET	N/A	REMARKS
	PART I - LSC REQUIREMENTS - Items in italics relate to the FSES				
	BUILDING CONSTRUCTION				
K11	If the building has a common wall with a nonconforming building, the common wall is a fire barrier having at least a two hour fire resistance rating constructed of materials as required for the addition. Communicating openings occur only in corridors and shall be protected by approved self-closing fire doors. 18.1.1.4.1, 18.1.1.4.2, 19.1.1.4.1, 19.1.1.4.2				
K12	2000 EXISTING Building construction type and height meets one of the following: 19.1.6.2, 19.1.6.3, 19.1.6.4, 19.3.5.1				

1		I (443), I (332), II (222)	Any Height
2		II (111)	One story only (non-sprinklered).
3		II (111)	Not over three stories with complete automatic sprinkler system.
4		III (211)	Not over two stories with complete automatic sprinkler system.
5		V (111)	
6		IV (2HH)	
7		II (000)	
8		III (200)	Not over one story with complete automatic sprinkler system.
9		V (000)	

☐ Building contains fire treated wood.
Give a brief description, in REMARKS, of the construction, the number of stories, including basements, floors on which patients are located, location of smoke or fire barriers and dates of approval. Complete sketch or attach small floor plan of the building as appropriate.

ID PREFIX					MET	NOT MET	N/A	REMARKS
K12	2000 NEW Building construction type and height meets one of the following: 18.1.6.2, 18.1.6.3, 18.2.5.1							
	1		I (443), I (332), II (222)	Any height with complete automatic sprinkler system				
	2		II (111)	Not over three stories with complete automatic sprinkler system				
	3		III (211)	Not over one story with complete automatic sprinkler system.				
	4		V (111)					
	5		IV (2HH)					
	6		II (000)					
	7		III (200)	Not Permitted				
	8		V (000)					
	☐ Building contains fire treated wood. *Give a brief description, in REMARKS, of the construction, the number of stories, including basements, floors on which patients are located, location of smoke or fire barriers and dates of approval. Complete sketch or attach small floor plan of the building as appropriate.*							
K103	Interior walls and partitions in buildings of Type I or Type II construction shall be noncombustible or limited-combustible materials. 18.1.6.3, 19.1.6.3 (Indicate N/A for existing buildings using listed fire retardant treated wood studs within non-load bearing one-hour rated partitions.)							

Name of Facility 2000 CODE

ID PREFIX		MET	NOT MET	N/A	REMARKS
	INTERIOR FINISH				
K14	2000 EXISTING Interior finish for corridors and exitways, including exposed interior surfaces of buildings such as fixed or movable walls, partitions, columns, and ceilings has a flame spread rating of Class A or Class B. 19.3.3.1, 19.3.3.2 *Indicate flame spread rating/s*_____				
	2000 NEW Interior finish for corridors and exitways, including exposed interior surfaces of buildings such as fixed or movable walls, partitions, columns, and ceilings has a flame spread rating of Class A or Class B. Lower portion of corridor walls can be Class C. 18.3.3.1, 18.3.3.2 *Indicate flame spread rating/s*_____				
K15	2000 EXISTING Interior finish for rooms and spaces not used for corridors or exitways, including exposed interior surfaces of buildings such as fixed or movable walls, partitions, columns, and ceilings has a flame spread rating of Class A or Class B. (In fully-sprinklered buildings, flame spread rating of Class A, Class B, or Class C may be continued in use within rooms separated in accordance with 19.3.6 from the access corridors.) 19.3.3.1, 19.3.3.2 *Indicate flame spread rating/s*_____				
	2000 NEW Interior finish for rooms and spaces not used for corridors or exitways, including exposed interior surfaces of buildings such as fixed or movable walls, partitions, columns, and ceilings has a flame spread rating of Class A or Class B. (Rooms not over 4 persons in capacity may have a flame spread rating of Class A, Class B, or Class C). 18.3.3.1, 18.3.3.2. *Indicate flame spread rating/s*_____				

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ID PREFIX		MET	NOT MET	N/A	REMARKS
K16	Newly installed interior floor finish complying with 10.2.7 shall be permitted in corridors and exits if Class I. 18.3.3.3, 19.3.3.3 (Indicate N/A for existing interior floor finish.) In smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.2, no interior floor finish requirements shall apply.				
	CORRIDOR WALLS AND DOORS				
K17	2000 EXISTING Corridors are separated from use areas by walls constructed with at least 1/2 hour fire resistance rating. In fully sprinklered smoke compartments, partitions are only required to resist the passage of smoke. In non-sprinklered buildings, walls properly extend above the ceiling. (Corridor walls may terminate at the underside of ceilings where specifically permitted by Code. Charting and clerical stations, waiting areas, dining rooms, and activity spaces may be open to corridor under certain conditions specified in the Code. Gift shops may be separated from corridors by non-fire rated walls if the gift shop is fully sprinklered.) 19.3.6.1, 19.3.6.2.1, 19.3.6.5 *If the walls have a fire resistance rating, give rating_____ if the walls terminate at the underside of a ceiling, give a brief description in REMARKS, of the ceiling, describing the ceiling throughout the floor area.*				
	2000 NEW Corridor walls shall form a barrier to limit the transfer of smoke. Such walls shall be permitted to terminate at the ceiling where the ceiling is constructed to limit the transfer of smoke. No fire resistance rating is required for the corridor walls. 18.3.6.1, 18.3.6.2, 18.3.6.5				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K18	2000 EXISTING Doors protecting corridor openings in other than required enclosures of vertical openings, exits, or hazardous areas shall be substantial doors, such as those constructed of 1¾ inch solid-bonded core wood, or capable of resisting fire for at least 20 minutes. Doors in fully sprinklered smoke compartments are only required to resist the passage of smoke. There is no impediment to the closing of the doors. Doors shall be provided with a means suitable for keeping the door closed. Dutch doors meeting 19.3.6.3.6 are permitted. 19.3.6.3 Roller latches are prohibited by CMS regulations in all health care facilities.				
	Show in REMARKS, details of doors, such as fire protection ratings, automatic closing devices, etc.				
	2000 New Doors protecting corridor openings shall be constructed to resist the passage of smoke. Doors shall be provided with positive latching hardware. Dutch doors meeting 18.3.6.3.6 are permitted. Roller latches shall be prohibited. 18.3.6.3				
	Show in REMARKS, details of doors, such as fire protection ratings, automatic closing devices, etc.				
K19	Vision panels in corridor walls or doors shall be fixed window assemblies in approved frames. (In fully sprinklered smoke compartments, there are no restrictions in the area and fire resistance of glass and frames.) 18.3.6.5, 18.3.6.3.1, 19.3.6.2.3, 19.3.6.3.8, 19.3.6.5				
K22	Access to exits shall be marked by approved, readily visible signs in all cases where the exit or way to reach exit is not readily apparent to the occupants. 7.10.1.4				
	VERTICAL OPENINGS				
K20	2000 EXISTING Stairways, elevator shafts, light and ventilation shafts, chutes, and other vertical openings between floors are enclosed with construction having a fire resistance rating of at least one hour. An atrium may be used in accordance with 8.2.5.6, 19.3.1.1				

ID PREFIX		MET	NOT MET	N/A	REMARKS
	If all vertical openings are properly enclosed with construction providing at least a two hour fire resistance rating, also check this box. ☐				
	If enclosures are less than required, give a brief description and specific location in REMARKS.				
	2000 NEW Stairways, elevator shafts, light and ventilation shafts, chutes, and other vertical openings between floors are enclosed with construction having a fire resistance rating of at least two hours connecting four stories or more. (One hour for single story building and sprinklered buildings up to three stories in height.) 18.3.1.1. An atrium may be used in accordance with 8.2.2.3.5.				
	If enclosures are less than required, give a brief description and specific location in REMARKS.				
K21	Any door in an exit passageway, stairway enclosure, horizontal exit, smoke barrier or hazardous area enclosure shall be permitted to be held open only by devices arranged to automatically close all such doors by zone or throughout the facility upon activation of: ☐ (a) The required manual fire alarm system and ☐ (b) Local smoke detectors designed to detect smoke passing through the opening or a required smoke detection system and ☐ (c) The automatic sprinkler system, if installed 18.2.2.2.6, 19.2.2.2.6, 7.2.1.8.2				
	Describe method used in REMARKS				
K33	2000 EXISTING Exit components (such as stairways) are enclosed with construction having a fire resistance rating of at least one hour, are arranged to provide a continuous path of escape, and provide protection against fire or smoke from other parts of the building. 8.2.5.2, 19.3.1.1				

ID PREFIX		MET	NOT MET	N/A	REMARKS
	If all vertical openings are properly enclosed with construction providing at least a two hour fire resistance rating, also check this box. ☐				
	If enclosures are less than required, give a brief description and specific location in REMARKS.				
	2000 NEW Exit components (such as stairways) in buildings four stories or more are enclosed with construction having a fire resistance rating of at least two hours, are arranged to provide a continuous path of escape, and provide a protection against fire and smoke from other parts of the building. In all buildings less than four stories, the enclosure is at least one hour. 8.2.5.4, 18.3.1.1				
	If enclosures are less than required, give a brief description and specific location in REMARKS.				
	SMOKE COMPARTMENTATION AND CONTROL				
K23	2000 EXISTING Smoke barriers shall be provided to form at least two smoke compartments on every sleeping room floor for more than 30 patients. 19.3.7.1, 19.3.7.2				
	2000 NEW Smoke barriers shall be provided to form at least two smoke compartments on every floor used by inpatients for sleeping or treatment, and on every floor with an occupant load of 50 or more persons, regardless of use. Smoke barriers shall also be provided on floors that are usable, but unoccupied. 18.3.7.1, 18.3.7.2				
K24	The smoke compartments shall not exceed 22,500 square feet and the travel distance to and from any point to reach a door in the required smoke barrier shall not exceed 200 feet. 18.3.7.1, 19.3.7.1				
	Detail in REMARKS zone dimensions including length of zones and dead end corridors.				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K25	2000 EXISTING Smoke barriers shall be constructed to provide at least a one-half hour fire resistance rating and constructed in accordance with 8.3. Smoke barriers shall be permitted to terminate at an atrium wall. Windows shall be protected by fire-rated glazing or by wired glass panels and steel frames. A minimum of two separate compartments shall be provided on each floor. Dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air conditioning systems.19.3.7.3, 19.3.7.5, 19.1.6.3, 19.1.6.4				
	2000 NEW Smoke barriers shall be constructed to provide at least a one-hour fire resistance rating and constructed in accordance with 8.3. Smoke barriers shall be permitted to terminate at an atrium wall. Windows shall be protected by fire-rated glazing or by wired glass panels in approved frames. A minimum of two separate compartments shall be provided on each floor. Dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air conditioning systems. 18.3.7.3, 18.3.7.5, 18.1.6.3				
K26	Space shall be provided on each side of smoke barriers to adequately accommodate those occupants served. 18.3.7.4, 19.3.7.4				
K27	2000 EXISTING Door openings in smoke barriers have at least a 20 minute fire protection rating or are at least 1¾ inch thick solid bonded core wood. Non-rated protective plates that do not exceed 48 inches from the bottom of the door are permitted. Horizontal sliding doors comply with 7.2.1.14. Doors shall be self-closing or automatic-closing in accordance with 19.2.2.2.6. Swinging doors are not required to swing with egress and positive latching is not required. 19.3.7.5, 19.3.7.6, 19.3.7.7				
	2000 NEW Door openings in smoke barriers have at least a 20 minute fire protection rating or are at least 1¾ inch thick solid bonded core wood. Non-rated protective plates that do not exceed 48 inches from the bottom of the door are permitted. Horizontal sliding doors comply with 7.2.1.14. Swinging doors shall be arranged so that each door swings in an opposite direction. Doors shall be self-closing and rabbets, bevels or astragals are required at the meeting edges. Positive latching is not required. 18.3.7.5, 18.3.7.6, 18.3.7.8				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K28	2000 EXISTING Door openings in smoke barriers shall provide a minimum clear width of 32 inches (81 cm) for swinging or horizontal doors. Vision panels are of fire-rated glazing or wired glass panels and steel frames. 19.3.7.5, 19.3.7.7				
	2000 NEW Door openings in smoke barriers are installed as swinging or horizontal doors shall provide a minimum clear width as follows:				

Provider Type	Swinging Doors	Horizontal Sliding Doors
Hospitals and Nursing Facilities	41.5 inches (105 cm)	83 inches (211 cm)
Psychiatric Hospitals and Limited Care Facilities	32 inches (81 cm)	64 inches (163 cm)

Vision panels of fire-rated glazing or wired panels in approved frames are provided for each door. 18.3.7.5, 18.3.7.7

K104	Penetrations of smoke barriers by ducts are protected in accordance with 8.3.6.				
	Describe any mechanical smoke control system in REMARKS.				
	HAZARDOUS AREA				
K29	2000 EXISTING One hour fire rated construction (with ¾ hour fire-rated doors) or an approved automatic fire extinguishing system in accordance with 8.4.1 and/or 19.3.5.4 protects hazardous areas. When the approved automatic fire extinguishing system option is used, the areas shall be separated from other spaces by smoke resisting partitions and doors. Doors shall be self-closing and non-rated or field-applied protective plates that do not exceed 48 inches from the bottom of the door are permitted. 19.3.2.1				

Area	Automatic Sprinkler	Separation	N/A
a. Boiler and Fuel-Fired Heater Rooms			
c. Laundries (greater than 100 sq feet)			
d. Repair Shops and Paint Shops			
e. Laboratories (if classified a Severe Hazard - see K31)			
f. Combustible Storage Rooms/Spaces (over 50 sq feet)			
g. Trash Collection Rooms			
i. Soiled Linen Rooms			

Describe the floor and zone locations of hazardous areas that are deficient in REMARKS.

ID PREFIX		MET	NOT MET	N/A	REMARKS
	2000 NEW Hazardous areas are protected in accordance with 8.4. The areas shall be enclosed with a one hour fire-rated barrier, with a ¾ hour fire-rated door, without windows (in accordance with 8.4). Doors shall be self-closing or automatic closing in accordance with 7.2.1.8. 18.3.2.1				
K30	Gift shops shall be protected as hazardous areas when used for storage or display of combustibles in quantities considered hazardous. Non-rated walls may separate gift shops that are not considered hazardous, have separate protected storage and that are completely sprinkled. Gift shops may be open to the corridor if they are not considered hazardous, have separate protected storage, are completely sprinklered and do not exceed 500 square feet. 18.3.2.5, 19.3.2.5				
K211	2000 EXISTING Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 19.3.2.7, CFR 403.744, 418.100, 460.72, 482.41, 483.70, 483.623, 485.623				

Area	Automatic Sprinkler	Separation	N/A
a. Boiler and Fuel-Fired Heater Rooms			
c. Laundries (greater than 100 sq feet)			
d. Repair, Maintenance and Paint Shops			
e. Laboratories (if classified a Severe Hazard - see K31)			
f. Combustible Storage Rooms/Spaces (over 50 and less than 100 sq feet)			
g. Trash Collection Rooms			
i. Soiled Linen Rooms			
m. Combustible Storage Rooms/Spaces (over 100 sq feet)			

Describe the floor and zone locations of hazardous areas that are deficient in REMARKS.

Area	Automatic Sprinkler	Separation	N/A
1. Gift Shop storing hazardous quantities of combustibles			

ID PREFIX		MET	NOT MET	N/A	REMARKS
K211	2000 NEW Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 18.3.2.7, CFR 403.744, 418.100, 460.72, 482.41, 483.70, 483.623, 485.623				
	EXIT AND EXIT ACCESS				
K32	Not less than two exits, remote from each other, are provided for each floor or fire section of the building. Only one of these two exits may be a horizontal exit. 18.2.4.1, 18.2.4.2, 19.2.4.1, 19.2.4.2				
	EXITS AND EGRESS				
K34	Stairways and smokeproof towers used as exits are in accordance with 7.2. 18.2.2.4, 19.2.2.3, 19.2.2.4				
K35	Capacity of exits in number of persons per unit of exit width is in accordance with 7.3. 18.2.3.1, 19.2.3.1				
K36	Travel distance (exit access) to exits are in accordance with 7.6. 18.2.6, 19.2.6				
K37	2000 EXISTING Existing dead-end corridors shall be permitted to be continued to be used if it is impractical and unfeasible to alter them so that exists are accessible in not less than two different directions from all points in aisles, passageways, and corridors. 19.2.5.10				

ID PREFIX		MET	NOT MET	N/A	REMARKS
	2000 NEW Every exit and exit access shall be arranged so that no corridor, aisle or passageway has a pocket or dead-end exceeding 30 feet. 18.2.5.10				
K38	Exit access is so arranged that exits are readily accessible at all times in accordance with 7.1. 18.2.1, 19.2.1				
K39	2000 EXISTING Width of aisles or corridors (clear and unobstructed) serving as exit access shall be at least 4 feet. 19.2.3.3				
	2000 NEW Width of aisles or corridors (clear and unobstructed) serving as exit access in hospitals and nursing homes shall be at least 8 feet. In limited care facility and psychiatric hospitals, width of aisles or corridors shall be at least 6 feet. 18.2.3.3, 18.2.3.4				
K40	2000 EXISTING Exit access doors and exit doors used by health care occupants are of the swinging type and are at least 32 inches in clear width. 19.2.3.5				
	2000 NEW Exit access doors and exit doors used by health care occupants are of the swinging type, with openings of at least 41.5 inches wide. Doors in exit stairway enclosures shall be no less than 32 inches in clear width. In ICFs/MR, doors are at least 32 inches wide. 18.2.3.5				
K41	All sleeping rooms have a door leading to a corridor providing access to an exit or have a door leading directly to grade. One room may intervene in accordance with 18.2.5.1, 19.2.5.1, 18.2.5.9, 19.2.5.9 *If doors lead directly to grade from each room, check this box.* ☐				
K42	Any room or suite of rooms of more than 1,000 sq. ft. has at least 2 exit access doors remote from each other. 18.2.5.2, 19.2.5.2				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K43	Patient room doors are arranged such that the patients can open the door from inside without using a key.				
	Special door locking arrangements are permitted in facilities. 18.2.2.2.4, 18.2.2.2.5 *If door locking arrangement without delay egress is used indicate in REMARKS* 18.2.2.2.2, 19.2.2.2.2				
K44	Horizontal exits, if used, are in accordance with 7.2.4. 18.2.2.5, 19.2.2.5				
	ILLUMINATION AND EMERGENCY POWER				
K45	Illumination of means of egress, including exit discharge, is arranged so that failure of any single lighting fixture (bulb) will not leave the area in darkness. 18.2.8, 19.2.8, 7.8				
K46	Emergency lighting of at least 1½ hour duration is provided in accordance with 7.9. 18.2.9.1, 19.2.9.1.				
K47	2000 EXISTING Exit and directional signs are displayed in accordance with 7.10 with continuous illumination also served by the emergency lighting system. 19.2.10.1 (Indicate N/A in one story buildings with less than 30 occupants where the line of exit travel is obvious.)				
	2000 NEW Exit and directional signs are displayed with continuous illumination also served by the emergency lighting, system in accordance with 7.10. 18.2.10.1				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K105	2000 NEW (INDICATE N/A FOR EXISTING) Buildings equipped with or requiring the use of life support systems (electro-mechanical or inhalation anesthetics) have illumination of means of egress, emergency lighting equipment, exit, and directional signs supplied by the Life Safety Branch of the electrical system described in NFPA 99. 18.2.9.2., 18.2.10.2, 18.5.1.1, 18.5.1.2 (Indicate N/A if life support equipment is for emergency purposes only).				
K107	2000 NEW (INDICATE N/A FOR EXISTING) Required alarm and detection systems are provided with an alternative power supply in accordance with NFPA 72. 9.6.1, 18.3.4.1.3				
K108	2000 NEW (INDICATE N/A FOR EXISTING) Alarms, emergency communication systems, and illumination of generator set locations are in accordance with NFPA 70. 9.1.2				
	EMERGENCY PLAN AND FIRE DRILLS				
K48	There is a written plan for the protection of all patients and for their evacuation in the event of an emergency. 18.7.1.1, 19.7.1.1				
K50	Fire drills are held at unexpected times under varying conditions, at least quarterly on each shift. The staff is familiar with procedures and is aware that drills are part of established routine. Responsibility for planning and conducting drills is assigned only to competent persons who are qualified to exercise leadership. Where drills are conducted between 9:00 PM and 6:00 AM a coded announcement may be used instead of audible alarms. 18.7.1.2, 19.7.1.2				

ID PREFIX		MET	NOT MET	N/A	REMARKS
	FIRE ALARM SYSTEMS				
K51	2000 EXISTING A fire alarm system with approved component, devices or equipment installed according to NFPA 72, National Fire Alarm Code to provide effective warning of fire in any part of the building. Activation of the complete fire alarm system shall be by manual fire alarm initiation, automatic detection or extinguishing system operation. Pull stations in patient sleeping areas, may be omitted provided that manual pull stations are within 200 ft of nurse's stations. Pull stations are located in the path of egress. Electronic or written records of tests shall be available. A reliable second source of power must be provided. Fire alarm systems shall be in accordance with NFPA72, and records of maintenance kept readily available. There shall be annunciation of the fire alarm system to an approved central station. 19.3.4, 9.6				
	2000 NEW A fire alarm system with approved component, devices or equipment installed according to NFPA 72, to provide effective warning of fire in any part of the building. Activation of the complete fire alarm system shall be by manual fire alarm initiation, automatic detection or extinguishing system operation. Pull stations are located in the path of egress. Electronic or written records of tests shall be available. A reliable second source of power must be provided. Fire alarm systems shall be maintained in accordance with NFPA72, and records of maintenance kept readily available. There shall be remote annunciation of the fire alarm system to an approved central station. 18.3.4, 9.6				
K52	A fire alarm system required for life safety shall be installed, tested, and maintained in accordance with NFPA 70 National Electrical Code and NFPA 72. The system shall have an approved maintenance and testing program complying with applicable requirement of NFPA 70 and 72. 9.6.1.4				
K155	Where a required fire alarm system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the fire alarm system has been returned to service. 9.6.1.8				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K53	2000 EXISTING (INDICATE N/A FOR HOSPITAL AND FULLY SPRINKLERED NURSING HOMES) In an existing nursing home, not fully sprinklered, the resident sleeping rooms and public areas (dining rooms, activity rooms, resident meeting rooms, etc) are to be equipped with single station battery-operated smoke detectors. There will be a testing, maintenance and battery replacement program to ensure proper operation. CFR 483.70				
	2000 NEW (NURSING HOME AND EXISTING LIMITED CARE FACILITIES) An automatic smoke detection system is installed in all corridors. (As an alternative to the corridor smoke detection system on patient sleeping room floors, smoke detectors may be installed in each patient sleeping room and at smoke barrier or horizontal exit doors in the corridor.) Such detectors are electrically interconnected to the fire alarm system. 18.3.4.5.3				
K109	2000 EXISTING LIMITED CARE FACILITIES (INDICATE N/A FOR HOSPITALS OR NURSING HOMES) An automatic smoke detection system is installed in all corridors with detector spacing no further apart than 30 ft on center in accordance with NFPA 72. (As an alternative to the corridor smoke detection system on patient sleeping room floors, smoke detectors may be installed in each patient sleeping room and at smoke barrier or horizontal exit doors in the corridors.) Such detectors are electrically interconnected to the fire alarm system. 19.3.4.5.1 Smoke Detection System ❑ Corridors ❑ Rooms ❑ Bath				
K54	All required smoke detectors, including those activating door hold-open devices, are approved, maintained, inspected and tested in accordance with the manufacturer's specifications. 9.6.1.3				
	Give a brief description, in REMARKS of any smoke detection system which may be installed				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K55	2000 EXISTING Every patient sleeping room shall have an outside window or outside door. Except for newborn nurseries and rooms intended for occupancy for less than 24 hours. 19.3.8				
	2000 NEW Every patient sleeping room shall have an outside window or outside door. The allowable sill height shall not exceed 36 inches (91 cm) above the floor. Windows are not required for recovery rooms, newborn nurseries, emergency rooms, and similar rooms intended for occupancy for less than 24 hours. Window sill height for limited care facilities shall not exceed 44 inches (112 cm) above the floor. 18.3.8				
	AUTOMATIC SPRINKLER SYSTEMS				
K56	2000 EXISTING Where required by section 19.1.6, Health care facilities shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with section 9.7. Required sprinkler systems are equipped with water flow and tamper switches which are electrically interconnected to the building fire alarm. 19.3.5, NPFA 13				
	2000 NEW There is an automatic sprinkler system installed in accordance with NFPA13, Standard for the Installation of Sprinkler Systems, with approved components, device and equipment, to provide complete coverage of all portions of the facility. Systems are equipped with waterflow and tamper switches, which are connected to the fire alarm system. 18.3.5.				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K154	Where a required automatic sprinkler system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch system be provided for all parties left unprotected by the shutdown until the sprinkler system has been returned to service. 9.7.6.1.				
	A. Date sprinkler system last checked and necessary maintenance provided. _____				
	B. Show who provided the service. _____				
	C. Note the source of water supply for the automatic sprinkler system. _____				
	(Provide, in REMARKS, information on coverage for any non-required or partial automatic sprinkler system.)				
K60	Initiation of the required fire alarm systems shall be by manual means in accordance with 9.6.2 and by means of any required sprinkler system waterflow alarms, detection devices, or detection systems. 18.3.4.2, 19.3.4.2, 9.6.2.1				
K61	Required automatic sprinkler systems shall have valves supervised so that at least a local alarm will sound when the valves are closed. 9.7.2.1, NFPA 72				
K62	Automatic sprinkler systems are continuously maintained in reliable operating condition and are inspected and tested periodically. 18.7.6, 19.7.6, 4.6.12, NFPA 13, NFPA 25, 9.7.5				
K63	Required automatic sprinkler systems have an adequate and reliable water supply which provides continuous and automatic pressure. 9.7.1.1, NFPA 13				
K64	Portable fire extinguishers shall be provided in all health care occupancies in accordance with 9.7.4.1, NFPA 10. 18.3.5.6, 19.3.5.6				

Name of Facility 2000 CODE

ID PREFIX		MET	NOT MET	N/A	REMARKS
	SMOKING REGULATIONS				
K66	Smoking regulations shall be adopted and shall include not less than the following provisions: 18.7.4, 19.7.4 ☐ (1) Smoking shall be prohibited in any room, ward, or compartment where flammable liquids, combustible gases, or oxygen is used or stored in any other hazardous location, and such area shall be posted with signs that read NO SMOKING or shall be posted with the international symbol for no smoking. ☐ (2) Smoking by patients classified as not responsible shall be prohibited, except when under direct supervision. ☐ (3) Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted. ☐ (4) Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted.				
	BUILDING SERVICE EQUIPMENT				
K67	Heating, ventilating, and air conditioning shall comply with 9.2 and shall be installed in accordance with the manufacturer's specifications. 18.5.2.1, 19.5.2.1, 9.2, NFPA 90A, 18.5.2.2, 19.5.2.2				
K68	Combustion and ventilation air for boiler, incinerator and heater rooms is taken from and discharged to the outside air. 18.5.2.2, 19.5.2.2.				
K69	Cooking facilities shall be protected in accordance with 9.2.3. 18.3.2.6, 19.3.2.6, NFPA 96				
K70	Portable space heating devices shall be prohibited in all health care occupancies. Except it shall be permitted to be used in non-sleeping staff and employee areas where the heating elements of such devices do not exceed 212°F (100°C). 18.7.8, 19.7.8				

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ID PREFIX		MET	NOT MET	N/A	REMARKS
K71	Rubbish Chutes, Incinerators and Laundry Chutes. 18.5.4, 19.5.4, 9.5, 8.4, NFPA 82				
	☐ (1) Any existing linen and trash chute, including pneumatic rubbish and linen systems, that opens directly onto any corridor shall be sealed by fire resistive construction to prevent further use or shall be provided with a fire door assembly having a fire protection rating of 1 hour. All new chutes shall comply with 9.5.				
	☐ (2) Any rubbish chute or linen chute, including pneumatic rubbish and linen systems, shall be provided with automatic extinguishing protection in accordance with 9.7.				
	☐ (3) Any trash chute shall discharge into a trash collection room used for no other purpose and protected in accordance with 8.4.				
	☐ (4) Existing flue-fed incinerators shall be sealed by fire resistive construction to prevent further use.				
K160	2000 EXISTING All existing elevators, having a travel distance of 25 ft or more above or below the level that best serves the needs of emergency personnel for fire fighting purposes, conform with Firefighter's Service Requirements of ASME/ ANSI A17.3, *Safety Code for Existing Elevators and Escalators.* 19.5.3, 9.4.3.2				
	ANSI A17.1 states 25 ft or more above or below the designated level and defines "designated level" as the main floor or other floor level that best serves the needs of emergency personnel for fire fighting purposes or rescue purposes identified by the building code or fire authority. Depending on floor slab thickness and heights this would generally apply to a three-story building, and almost certainly to a four-story building.				
	Includes firefighters service phase I key recall and smoke detector automatic recall, firefighters service phase II emergency in-car key operation, machine room smoke detectors, and elevator lobby smoke detectors. 19.5.3, 9.4.3.2				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K161	2000 EXISTING All existing escalators, dumbwaiters, and moving walks conform to the requirements of ASME/ ANSI A17.3, *Safety Code for Existing Elevators and Escalators*. 19.5.3, 9.4.2.2 Includes escalator emergency stop buttons and automatic skirt obstruction stop. For power dumbwaiters includes hoistway door locking to keep doors closed except for floor where car is being loaded or unloaded.				
	2000 NEW All elevators, escalators, and conveyors comply with ASME/ ANSI A17.1, *Safety Code for Elevators and Escalators* (Includes car emergency signaling, firefighters service phase I key and smoke detector automatic recall, firefighters service phase II emergency in-car operation, machine room smoke detectors, elevator lobby smoke detectors). 18.5.3, 9.4				
	FURNISHINGS AND DECORATIONS				
K72	Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. No furnishings, decorations, or other objects shall obstruct exits, access thereto, egress there from, or visibility thereof shall be in accordance with 7.1.10				
K73	No furnishings or decorations of highly flammable character shall be used. 18.7.5.2, 18.7.5.3, 18.7.5.4, 19.7.5.2, 19.7.5.3, 19.7.5.4				
K74	Draperies, curtains, including cubicle curtains, and other loosely hanging fabrics and films serving as furnishings or decorations in health care occupancies shall be in accordance with provisions of 10.3.1 and NFPA 13 Standard for the Installation of Sprinkler Systems. Except shower curtains shall be in accordance with NFPA 701. ☐ Newly introduced upholstered furniture shall meet the criteria specified when tested in accordance with the methods cited in 10.3.2 (2) and 10.3.1. 18.3.5.3 and NFPA 13 ☐ Newly introduced mattresses shall meet the criteria specified when tested in accordance with the method cited in 10.3.2 (3) and 10.3.4. 18.7.5.3, 19.7.5.3 Newly introduced upholstered furniture and mattresses means purchased since March, 2003.				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K75	Soiled linen or trash collection receptacles shall not exceed 32 gal (121 L) in capacity. The average density of container capacity in a room or space shall not exceed .5 gal/ft² (20.4 L/m²). A capacity of 32 gal (121 L) shall not be exceeded within any 64-ft² (5.9-m²) area. Mobile soiled linen or trash collection receptacles with capacities greater than 32 gal (121 L) shall be located in a room protected as a hazardous area when not attended. 18.7.5.5, 19.7.5.5				
	LABORATORIES				
K31	Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered a severe hazard shall be protected in accordance with NFPA 99. (Laboratories that are not considered to be severe hazard shall meet the provision of K29.) Laboratories in Health Care occupancies and medical and dental offices shall be in accordance with NFPA 99, Standard for Health Care Facilities 10.5.1.				
K136	Procedures for laboratory emergencies shall be developed. Such procedures shall include alarm actuation, evacuation, and equipment shutdown procedures, and provisions for control of emergencies that could occur in the laboratory, including specific detailed plans for control operations by an emergency control group within the organization or a public fire department in accordance with NFPA 99, 10.2.1.3.1, 18.3.2.2., 19.3.2.1				
K131	Emergency procedures shall be established for controlling chemical spills in accordance with NFPA 99. 10.2.1.3.2				
K132	Continuing safety education and supervision shall be provided, incidents shall be reviewed monthly, and procedures reviewed annually shall be in accordance with NFPA 99. 10.2.1.4.2				
K133	Fume hoods shall be in accordance with NFPA 99. 5.4.3, 5.6.2				
K134	Emergency Shower: Where the eyes or body of any person can be exposed to injurious corrosive materials, suitable fixed facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. Fixed eye baths designed and installed to avoid injurious water pressure shall be in accordance with NFPA 99, 10.6.				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K135	Flammable and combustible liquids shall be used from and stored in approved containers in accordance with NFPA 30, Flammable and Combustible Liquids Code, and NFPA 45, Standard on Fire Protection for Laboratories Using Chemicals. Storage cabinets for flammable and combustible liquids shall be constructed in accordance with NFPA 30, Flammable and Combustible liquids Code NFPA 99, 4.3, 10.7.2.1.				
	MEDICAL GASES AND ANESTHETIZING AREAS				
K76	Medical gas storage and administration areas shall be protected in accordance with NFPA 99, Standard for Health Care Facilities. (a) Oxygen storage locations of greater than 3,000 cu.ft. are enclosed by a one-hour separation. (b) Locations for supply systems of greater than 3,000 cu.ft. are vented to the outside. NFPA 99, 4.3.1.1.2, 18.3.2.4, 19.3.2.4				
K77	Piped in medical gas systems comply with NFPA 99, Chapter 4.				
K78	Anesthetizing locations shall be protected in accordance with NFPA 99, Standard for Health Care Facilities. (a) Shutoff valves are located outside each anesthetizing location and arranged so that shutting off one room or location will not affect others. (b) Relative humidity is maintained equal to or great than 35% NFPA 99 4.3.1.2.3(n) and 5.4.1.1, 18.3.2.3, 19.3.2.3				
K140	(a) Master alarm panels are in two separate locations and have audible and visible signals. (b) There are high/low alarms for +/- 20% operating pressure. This section shall be in accordance with NFPA 99, 4.3.1.2.2 (c) Where a level 2 gas system is used, one alarm panel that complies with 4.3.1.2.2(b) 3 a, b, c and d and with 4.3.1.2.2(c) 2 and 5 shall be permitted. (4.4.1 exception No. 4).				
K141	Non-smoking and no smoking signs in areas where oxygen is used or stored shall be in accordance with 18.3.2.4, 19.3.2.4, NFPA 99, 8.6.4.2				
K142	All occupancies containing hyperbaric facilities shall comply with NFPA 99, Standard for Health Care Facilities, Chapter 19.				

ID PREFIX		MET	NOT MET	N/A	REMARKS
K143	Transferring of oxygen shall be: (a) separated from any portion of a facility wherein patients are housed, examined, or treated by a separation of a fire barrier of 1-hour fire-resistive construction; and (b) the area that is mechanically ventilated, sprinklered, and has ceramic or concrete flooring; and (c) in an area that is posted with signs indicating that transferring is occurring, and that smoking in the immediate area is not permitted in accordance with NFPA 99 and Compressed Gas Association. 8.6.2.5.2				
	ELECTRICAL				
K106	The hospital and all nursing homes and hospices with life support equipment has a Type I Essential Electrical System powered by a generator with a transfer switch and separate power supply. The EES is in accordance with NFPA 99, 3.4.2.2, 3.4.2.1.4				
K144	Generators inspected weekly and exercised under load for 30 minutes per month and shall be in accordance with NFPA 99, 3.4.4.1, NFPA 110, 8.4.2				
K145	The Type I EES is divided into the critical branch, life safety branch and the emergency system and shall be in accordance with NFPA 99, 3.4.2.2.2				
K146	The nursing home/hospice with no life support equipment shall have an alternate source of power separate and independent from the normal source that will be effective for minimum of 1¼ hour after loss of the normal source NFPA 99, 3.6.				
K147	Electrical wiring and equipment shall be in accordance with NFPA 70, National Electrical Code. 9.1.2				
K130	Miscellaneous List in the REMARKS sections, any items that are not listed previously, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567.				

Name of Facility	2000 CODE

PART IV RECOMMENDATION FOR WAIVER OF SPECIFIC LIFE SAFETY CODE PROVISIONS

For each item of the Life Safety code recommended for waiver, list the survey report form item number and state the reason for the conclusion that: (a) the specific provisions of the code, if rigidly applied, would result in unreasonable hardship on the facility, and (b) the waiver of such unmet provisions will not adversely affect the health and safety of the patients. If additional space is required, attach additional sheet(s).

PROVISION NUMBER(S)	JUSTIFICATION
K84	

Surveyor *(Signature)*	Title	Office	Date
Fire Authority Official *(Signature)*	Title	Office	Date

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FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER	FACILITY NAME	SURVEY DATE
K1		* K4

K6 DATE OF PLAN APPROVAL

K3 MULTIPLE CONSTRUCTION

TOTAL NUMBER OF BUILDINGS _____

NUMBER OF THIS BUILDING _____

☐ A BUILDING
B WING
C FLOOR
D APARTMENT UNIT

LSC FORM INDICATOR

Health Care Form		
12	2786R	2000 EXISTING
13	2786R	2000 NEW

ASC Form		
14	2786U	2000 EXISTING
15	2786U	2000 NEW

ICF/MR Form		
16	2786V, W, X	2000 EXISTING
17	2786V, W, X	2000 NEW

* K7 ☐ SELECT NUMBER OF FORM USED FROM ABOVE

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)

K8 ☐ 1 PROMPT
2 SLOW
3 IMPRACTICAL

LARGE

K8: ☐ 4 PROMPT
5 SLOW
6 IMPRACTICAL

APARTMENT HOUSE

K8: ☐ 7 PROMPT
8 SLOW
9 IMPRACTICAL

(Check if K29 or K56 are marked as not applicable in the 2786 M, R, T, U, V, W, X and Y.)

K29 ☐ K56: ☐

ENTER E – SCORE HERE

K5: ☐ e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON *(Check all that apply)*

A1. ☐ (COMP. WITH ALL PROVISIONS)
A2. ☐ (ACCEPTABLE POC)
A3. ☐ (WAIVERS)
A4. ☐ (FSES)
A5. ☐ (PERFORMANCE BASED DESIGN)

FACILITY DOES NOT MEET LSC

B. ☐

K0180

A. ☐ FULLY SPRINKLERED (All required areas are sprinklered)
B. ☐ PARTIALLY SPRINKLERED (Not all required areas are sprinklered)
C. ☐ NONE (No sprinkler system)

* MANDATORY

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

2000 CODE

Form Approved
OMB No. 0938-0242

FIRE SAFETY SURVEY REPORT SHORT FORM
Medicare – Medicaid

1. (A) PROVIDER NUMBER K1

1. (B) MEDICAID I.D. NO. K2

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY

2. (A) MULTIPLE CONSTRUCTION (BLDGS) K3
A. BUILDING _____
B. WING _____
C. FLOOR _____

2. (B) ADDRESS OF FACILITY (STREET, CITY, STATE, ZIP CODE)

A. ☐ Fully Sprinklered (All required areas are sprinklered)
B. ☐ Partially Sprinklered (Not all required areas are sprinklered)
C. ☐ None (No sprinkler system) K3160

3. SURVEY FOR
☐ MEDICARE ☐ MEDICAID

4. DATE OF SURVEY K4

SHORT FORM
CHECK HERE ☐ K5

SURVEY UNDER
5. ☐ 2000 EXISTING ☐ 2000 NEW

5. SURVEY FOR CERTIFICATION OF K6
1. ☐ HOSPITAL 2. ☐ SKILLED/NURSING FACILITY

IF "2" OR "3" ABOVE IS MARKED, CHECK APPROPRIATE ITEM(S) BELOW
1. ☐ ENTIRE FACILITY 2. ☐ DISTINCT PART OF (SPECIFY)_____

3. ☐ IF DISTINCT PART OF HOSPITAL, IS HOSPITAL ACCREDITED BY JCAHO/AOA? a. ☐ YES b. ☐ NO

6. BED COMPOSITION

a. TOTAL NO. OF BEDS IN THE FACILITY	b. NUMBER OF HOSPITAL BEDS CERTIFIED FOR MEDICARE	c. NUMBER OF SKILLED BEDS CERTIFIED FOR MEDICARE	d. NUMBER OF SKILLED BEDS CERTIFIED FOR MEDICAID	e. NUMBER OF ICF BEDS CERTIFIED FOR MEDICAID

I HAVE CONDUCTED A FIRE SAFETY SCREENING USING THE SHORT FORM: K8
A. ☐ The facility meets all of the items on the form.
B. ☐ The facility does not meet all of the items on the form.
C. ☐ A complete fire safety survey is recommended.

K9: FOR STATE AGENCY USE ONLY
A. ☐ The facility MEETS based upon:
1. ☐ Compliance with all provisions
2. ☐ Acceptance of a Plan of Correction
3. ☐ Recommended waivers.
B. ☐ The facility DOES NOT MEET THE STANDARD.

SURVEYOR *(Signature)*	TITLE	OFFICE	DATE
8. SURVEYOR I.D. NO K10			
REVIEW AUTHORITY OFFICIAL *(Signature)*			

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-0242. The time required to complete this information collection is estimated to average 5 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to CMS, Attn: PRA Reports Clearance Officer, 7500 Security Boulevard, Baltimore, Maryland 21244-1850.

Form CMS-2786S (xx/xx) Page 1

Name of Facility					2000 CODE
ID PREFIX		MET	NOT MET	N/A	REMARKS
	CORRIDOR WALLS AND DOORS				
K18	2000 EXISTING Doors protecting corridor openings in other than required enclosures of vertical openings, exits, or hazardous areas shall be substantial doors, such as those constructed of 1¾ inch solid-bonded core wood, or capable of resisting fire for at least 20 minutes. Doors in fully sprinklered smoke compartments are only required to resist the passage of smoke. There is no impediment to the closing of the doors. Doors shall be provided with a means suitable for keeping the door closed. Dutch doors meeting 19.3.6.3.6 are permitted. 19.3.6.3 Roller latches are prohibited by CMS regulations in all health care facilities.				
	Show in REMARKS, details of doors, such as fire protection ratings, automatic closing devices, etc.				
	2000 New Doors protecting corridor openings shall be constructed to resist the passage of smoke. Doors shall be provided with positive latching hardware. Dutch doors meeting 18.3.6.3.6 are permitted. Roller latches shall be prohibited. 18.3.6.3				
	Show in REMARKS, details of doors, such as fire protection ratings, automatic closing devices, etc.				
K22	Access to exits shall be marked by approved, readily visible signs in all cases where the exit or way to reach exit is not readily apparent to the occupants. 7.10.1.4				
	VERTICAL OPENINGS				
K20	2000 EXISTING Stairways, elevator shafts, light and ventilation shafts, chutes, and other vertical openings between floors are enclosed with construction having a fire resistance rating of at least one hour. An atrium may be used in accordance with 8.2.5.6, 19.3.1.1. *If all vertical openings are properly enclosed with construction providing at least a two hour fire resistance rating, also check this box.* ☐				

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Name of Facility **2000 CODE**

ID PREFIX		MET	NOT MET	N/A	REMARKS
	If enclosures are less than required, give a brief description and specific location in REMARKS.				
	2000 NEW Stairways, elevator shafts, light and ventilation shafts, chutes, and other vertical openings between floors are enclosed with construction having a fire resistance rating of at least two hours connecting four stories or more. (One hour for single story building and sprinklered buildings up to three stories in height.) 18.3.1.1. An atrium may be used in accordance with 8.2.2.3.5.				
	If enclosures are less than required, give a brief description and specific location in REMARKS.				
	SMOKE COMPARTMENTATION AND CONTROL				
K23	2000 EXISTING Smoke barriers shall be provided to form at least two smoke compartments on every sleeping room floor for more than 30 patients. 19.3.7.1, 19.3.7.2				
	2000 NEW Smoke barriers shall be provided to form at least two smoke compartments on every floor used by inpatients for sleeping or treatment, and on every floor with an occupant load of 50 or more persons, regardless of use. Smoke barriers shall also be provided on floors that are usable, but unoccupied. 18.3.7.1, 18.3.7.2				
K28	2000 EXISTING Door openings in smoke barriers shall provide a minimum clear width of 32 inches (81 cm) for swinging or horizontal doors. Vision panels are of fire-rated glazing or wired glass panels and steel frames. 19.3.7.5, 19.3.7.7				

Form CMS-2786S (xx/xx) Page 3

ID PREFIX		MET	NO MET	N/A	REMARKS
	2000 NEW Door openings in smoke barriers are installed as swinging or horizontal doors shall provide a minimum clear width as follows:				

Provider Type	Swinging Doors	Horizontal Sliding Doors
Hospitals and Nursing Facilities	41.5 inches (105 cm)	83 inches (211 cm)
Psychiatric Hospitals and Limited Care Facilities	32 inches (81 cm)	64 inches (163 cm)

Vision panels of fire-rated glazing or wired panels in approved frames are provided for each door. 18.3.7.5, 18.3.7.7

HAZARDOUS AREA

K29

2000 EXISTING

One hour fire rated construction (with ¾ hour fire-rated doors) or an approved automatic fire extinguishing system in accordance with 8.4.1 and/or 19.3.5.4 protects hazardous areas. When the approved automatic fire extinguishing system option is used, the areas shall be separated from other spaces by smoke resisting partitions and doors. Doors shall be self-closing and non-rated or field-applied protective plates that do not exceed 48 inches from the bottom of the door are permitted. 19.3.2.1

Area	Automatic Sprinkler	Separation	N/A
a. Boiler and Fuel-Fired Heater Rooms			
c. Laundries (greater than 100 sq feet)			
d. Repair Shops and Paint Shops			
e. Laboratories (if classified a Severe Hazard - see K31)			
f. Combustible Storage Rooms/Spaces (over 50 sq feet)			
g. Trash Collection Rooms			
i. Soiled Linen Rooms			

Describe the floor and zone locations of hazardous areas that are deficient in REMARKS.

ID PREFIX		MET	NO MET	N/A	REMARKS
	2000 NEW Hazardous areas are protected in accordance with 8.4. The areas shall be enclosed with a one hour fire-rated barrier, with a ¾ hour fire-rated door, without windows (in accordance with 8.4). Doors shall be self-closing or automatic closing in accordance with 7.2.1.8. 18.3.2.1				
K30	Gift shops shall be protected as hazardous areas when used for storage or display of combustibles in quantities considered hazardous. Non-rated walls may separate gift shops that are not considered hazardous, have separate protected storage and that are completely sprinkled. Gift shops may be open to the corridor if they are not considered hazardous, have separate protected storage, are completely sprinklered and do not exceed 500 square °feet. 18.3.2.5, 19.3.2.5 18.2.6, 19.2.6				
K211	2000 EXISTING Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 19.3.2.7, CFR 482.41, 483.70, 483.623				

Area	Automatic Sprinkler	Separation	N/A
a. Boiler and Fuel-Fired Heater Rooms			
c. Laundries (greater than 100 sq feet)			
d. Repair, Maintenance and Paint Shops			
e. Laboratories (if classified a Severe Hazard - see K21)			
f. Combustible Storage Rooms/Spaces (over 50 and less than 100 sq feet)			
g. Trash Collection Rooms			
i. Soiled Linen Rooms			
m. Combustible Storage Rooms/Spaces (over 100 sq feet)			

Describe the floor and zone locations of hazardous areas that are deficient in REMARKS.

Area	Automatic Sprinkler	Separation	N/A
L. Gift Shop storing hazardous quantities of combustibles			

ID PREFIX		MET	NO MET	N/A	REMARKS
K211	2000 NEW Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 18.3.2.7, CFR 482.41, 483.70, 483.623				
	EXISTS AND EGRESS				
K38	Exit access is so arranged that exits are readily accessible at all times in accordance with 7.1. 18.2.1, 19.2.1				
K39	2000 EXISTING Width of aisles or corridors (clear and unobstructed) serving as exit access shall be at least 4 feet. 19.2.3.3				
	2000 NEW Width of aisles or corridors (clear and unobstructed) serving as exit access in hospitals and nursing homes shall be at least 8 feet. In limited care facility and psychiatric hospitals, width of aisles or corridors shall be at least 6 feet. 18.2.3.3, 18.2.3.4				
K40	2000 EXISTING Exit access doors and exit doors used by health care occupants are of the swinging type and are at least 32 inches in clear width. 19.2.3.5				
	2000 NEW Exit access doors and exit doors used by health care occupants are of the swinging type, with openings of at least 41.5 inches wide. Doors in exit stairway enclosures shall be no less than 32 inches in clear width. In ICFs/MR, doors are at least 32 inches wide. 18.2.3.5				

ID PREFIX		MET	NO MET	N/A	REMARKS
K43	Patient room doors are arranged such that the patients can open the door from inside without using a key. Special door locking arrangements are permitted in health facilities. 18.2.2.2.4, 18.2.2.2.5 *If door locking arrangement without delay egress is used indicate in REMARKS* 18.2.2.2.2, 19.2.2.2.2				
	ILLUMINATION AND EMERGENCY POWER				
K45	Illumination of means of egress, including exit discharge, is arranged so that failure of any single lighting fixture (bulb) will not leave the area in darkness. 18.2.8, 19.2.8, 7.8				
K47	2000 EXISTING Exit and directional signs are displayed in accordance with 7.10 with continuous illumination also served by the emergency lighting system. 19.2.10.1 (Indicate N/A in one story buildings with less than 30 occupants where the line of exit travel is obvious.)				
	2000 NEW Exit and directional signs are displayed with continuous illumination also served by the emergency lighting, system in accordance with 7.10. 18.2.10.1				
K105	2000 NEW (INDICATE N/A FOR EXISTING) Buildings equipped with or requiring the use of life support systems (electro-mechanical or inhalation anesthetics) have illumination of means of egress, emergency lighting equipment, exit, and directional signs supplied by the Life Safety Branch of the electrical system described in NFPA 99. 18.2.9.2., 18.2.10.2, 18.5.1.1, 18.5.1.2 (Indicate N/A if life support equipment is for emergency purposes only).				

ID PREFIX		MET	NO MET	N/A	REMARKS
	EMERGENCY PLAN AND FIRE DRILLS				
K48	There is a written plan for the protection of all patients and for their evacuation in the event of an emergency. 18.7.1.1, 19.7.1.1				
K50	Fire drills are held at unexpected times under varying conditions, at least quarterly on each shift. The staff is familiar with procedures and is aware that drills are part of established routine. Responsibility for planning and conducting drills is assigned only to competent persons who are qualified to exercise leadership. Where drills are conducted between 9:00 PM and 6:00 AM a coded announcement may be used instead of audible alarms. 18.7.1.2, 19.7.1.2				
	FIRE ALARM SYSTEMS				
K51	2000 EXISTING A fire alarm system with approved component, devices or equipment installed according to NFPA 72, National Fire Alarm Code to provide effective warning of fire in any part of the building. Activation of the complete fire alarm system shall be by manual fire alarm initiation, automatic detection or extinguishing system operation. Pull stations in patient sleeping areas, may be omitted provided that manual pull stations are within 200 ft of nurse's stations. Pull stations are located in the path of egress. Electronic or written records of tests shall be available. A reliable second source of power must be provided. Fire alarm systems shall be in accordance with NFPA 72, and records of maintenance kept readily available. There shall be annunciation of the fire alarm system to an approved central station. 19.3.4, 9.6				
	2000 NEW A fire alarm system with approved component, devices or equipment installed according to NFPA 72, to provide effective warning of fire in any part of the building. Activation of the complete fire alarm system shall be by manual fire alarm initiation, automatic detection or extinguishing system operation. Pull stations are located in the path of egress. Electronic or written records of tests shall be available. A reliable second source of power must be provided. Fire alarm systems shall be maintained in accordance with NFPA72, and records of maintenance kept readily available. There shall be remote annunciation of the fire alarm system to an approved central station. 18.3.4, 9.6				

Name of Facility 2000 CODE

ID PREFIX		MET	NO MET	N/A	REMARKS
K52	A fire alarm system required for life safety shall be installed, tested, and maintained in accordance with NFPA 70 National Electrical Code and NFPA 72. The system shall have an approved maintenance and testing program complying with applicable requirement of NFPA 70 and 72. 9.6.1.4				
K155	Where a required fires alarm system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the fire alarm system has been returned to service. 9.6.1.8				
K53	2000 EXISTING (INDICATE N/A FOR HOSPITALS AND FULLY SPRINKLERED NURSING HOMES) In an existing nursing home, not fully sprinklered, the resident sleeping rooms and public areas (dining rooms, activity rooms, resident meeting rooms, etc) are to be equipped with single station battery-operated smoke detectors. There will be a testing, maintenance and battery replacement program to ensure proper operation. CFR 483.70				
	2000 NEW (NURSING HOME AND EXISTING LIMITED CARE FACILITIES) An automatic smoke detection system is installed in all corridors. (As an alternative to the corridor smoke detection system on patient sleeping room floors, smoke detectors may be installed in each patient sleeping room and at smoke barrier or horizontal exit doors in the corridor.) Such detectors are electrically interconnected to the fire alarm system. 18.3.4.5.3				

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ID PREFIX		MET	NO MET	N/A	REMARKS
K109	2000 EXISTING LIMITED CARE FACILITIES (INDICATE N/A FOR HOSPITALS OR NURSING HOMES) An automatic smoke detection system is installed in all corridors, with detector spacing no further apart than 30 ft on center in accordance with NFPA 72. (As an alternative to the corridor smoke detection system on patient sleeping room floors, smoke detectors may be installed in each patient sleeping room and at smoke barrier or horizontal exit doors in the corridors.) Such detectors are electrically interconnected to the fire alarm system. 19.3.4.5.1 Smoke Detection System ❑ Corridors ❑ Rooms ❑ Bath				
	AUTOMATIC SPRINKLER SYSTEMS				
K56	2000 EXISTING Where required by section 19.1.6, Health care facilities shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with section 9.7. Required sprinkler systems are equipped with water flow and tamper switches which are electrically interconnected to the building fire alarm. 19.3.5, NPFA 13				
	2000 NEW When required by construction type, there is an automatic sprinkler system installed in accordance with NFPA13, Standard for the Installation of Sprinkler Systems, with approved components, device and equipment, to provide complete coverage of all portions of the facility. Systems are equipped with waterflow and tamper switches, which are connected to the fire alarm system. 18.3.5.				
	A. Date sprinkler system last checked and necessary maintenance provided. _____ B. Show who provided the service. _____				

ID PREFIX		MET	NO MET	N/A	REMARKS
K154	Where a required automatic sprinkler system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch system be provided for all parties left unprotected by the shutdown until the sprinkler system has been returned to service. 9.7.6.1				
K62	Automatic sprinkler systems are continuously maintained in reliable operating condition and are inspected and tested periodically. 18.7.6, 19.7.6, 4.6.12, NFPA 13, NFPA 25, 9.7.5				
K64	Portable fire extinguishers shall be provided in all health care occupancies in accordance with 9.7.4.1, NFPA 10. 18.3.5.6, 19.3.5.6				
	SMOKING REGULATIONS				
K66	Smoking regulations shall be adopted and shall include not less than the following provisions: 18.7.4, 19.7.4				
	☐ (1) Smoking shall be prohibited in any room, ward, or compartment where flammable liquids, combustible gases, or oxygen is used or stored in any other hazardous location, and such area shall be posted with signs that read NO SMOKING or shall be posted with the international symbol for no smoking.				
	☐ (2) Smoking by patients classified as not responsible shall be prohibited, except when under direct supervision.				
	☐ (3) Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted.				
	☐ (4) Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted.				

Name of Facility 2000 CODE

ID PREFIX		MET	NO MET	N/A	REMARKS
	BUILDING SERVICE EQUIPMENT				
K70	Portable space heating devices shall be prohibited in all health care occupancies. Except it shall be permitted to be used in non-sleeping staff and employee areas where the heating elements of such devices do not exceed 212°F (100°C). 18.7.8, 19.7.8				
	FURNISHINGS AND DECORATIONS				
K72	Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. No furnishings, decorations, or other objects shall obstruct exits, access thereto, egress there from, or visibility thereof shall be in accordance with 7.1.10				
K74	Draperies, curtains, including cubicle curtains, and other loosely hanging fabrics and films serving as furnishings or decorations in health care occupancies shall be in accordance with provisions of 10.3.1 and NFPA 13 Standard for the Installation of Sprinkler Systems. Except shower curtains shall be in accordance with NFPA 701. ☐ Newly introduced upholstered furniture shall meet the criteria specified when tested in accordance with the methods cited in 10.3.2 (2) and 10.3.1. 18.3.5.3 and NFPA 13				
	LABORATORIES				
K31	Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered a severe hazard shall be protected in accordance with NFPA 99. (Laboratories that are not considered to be severe hazard shall meet the provision of K29.) Laboratories in Health Care occupancies and medical and dental offices shall be in accordance with NFPA 99, Standard for Health Care Facilities 10.5.1.				

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ID PREFIX		MET	NO MET	N/A	REMARKS
K134	Emergency Shower: Where the eyes or body of any person can be exposed to injurious corrosive materials, suitable fixed facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. Fixed eye baths designed and installed to avoid injurious water pressure shall be in accordance with NFPA 99, 10.6.				
K135	Flammable and combustible liquids shall be used from and stored in approved containers in accordance with NFPA 30, Flammable and Combustible Liquids Code, and NFPA 45, Standard on Fire Protection for Laboratories Using Chemicals. Storage cabinets for flammable and combustible liquids shall be constructed in accordance with NFPA 30, Flammable and Combustible liquids Code NFPA 99, 4.3, 10.7.2.1.				
	MEDICAL GASES AND ANESTHETIZING AREAS				
K76	Medical gas storage and administration areas shall be protected in accordance with NFPA 99, Standard for Health Care Facilities. (a) Oxygen storage locations of greater than 3,000 cu.ft. are enclosed by a one-hour separation. (b) Locations for supply systems of greater than 3,000 cu.ft. are vented to the outside. NFPA 99, 4.3.1.1.2, 18.3.2.4, 19.3.2.4				
K141	Non-smoking and no smoking signs in areas where oxygen is used or stored shall be in accordance with 18.3.2.4, 19.3.2.4, NFPA 99, 8.6.4.2				
K143	Transferring of oxygen shall be: (a) separated from any portion of a facility wherein patients are housed, examined, or treated by a separation of a fire barrier of 1-hour fire-resistive construction; and (b) the area that is mechanically ventilated, sprinklered, and has ceramic or concrete flooring; and (c) in an area that is posted with signs indicating that transferring is occurring, and that smoking in the immediate area is not permitted in accordance with NFPA 99 and Compressed Gas Association. 8.6.2.5.2				

ID PREFIX		MET	NO MET	N/A	REMARKS
	ELECTRICAL				
K144	Generators inspected weekly and exercised under load for 30 minutes per month and shall be in accordance with NFPA 99, 3.4.4.1, NFPA 110, 8.4.2.				
K146	The nursing home/hospice with no life support equipment shall have an alternate source of power separate and independent from the normal source that will be effective for minimum of 1½ hour after loss of the normal source NFPA 99, 3.6				
K130	Miscellaneous List in the REMARKS sections, any items that are not listed previously, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567.				

FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER	FACILITY NAME	SURVEY DATE * K4

* K4 MULTIPLE CONSTRUCTION	TOTAL NUMBER OF BUILDINGS _____ NUMBER OF THIS BUILDING _____	☐ A BUILDING B WING C FLOOR D APARTMENT UNIT

LSC FORM INDICATOR

1	2786	A-67	EXISTING
2		A-67	NEW
3		B-73	EXISTING
4		B-73	NEW
5		F-81	EXISTING
6		F-81	NEW
7		C-SHORT	
8		H-ASC	
9		J, K, L	85-CHAPTER 21 (ICFs/MR ONLY)
10		P-85	EXISTING
11		P-85	NEW

*K7 ☐ SELECT NUMBER OF FORM USED FROM ABOVE

(Check if not applicable)

K29 ☐ K56: ☐

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)

K8 ☐ 1 PROMPT
2 SLOW
3 IMPRACTICAL

LARGE

K8 ☐ 4 PROMPT
5 SLOW
6 IMPRACTICAL

APARTMENT HOUSE

K8: ☐ 7 PROMPT
8 SLOW
9 IMPRACTICAL

ENTER E – SCORE HERE

K5: ☐ e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON: *(Check all that apply)*

A1. ☐ (COMP. WITH ALL PROVISIONS)
A2. ☐ (ACCEPTABLE POC)
A3. ☐ (WAIVERS)
A4. ☐ (FSES)

FACILITY DOES NOT MEET LSC:

B. ☐

K0180

A. ☐ FULLY SPRINKLERED (All required areas are sprinklered)
B. ☐ PARTIALLY SPRINKLERED (Not all required areas are sprinklered)
C. ☐ NONE (No sprinkler system)

* MANDATORY

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

Form Approved
OMB No. 0938-0242

ZONE _____ OF _____ ZONES

FIRE/SMOKE ZONE* EVALUATION WORKSHEET FOR HEALTH CARE FACILITIES

2000 LIFE SAFETY CODE

FACILITY	BUILDING
ZONE(S) EVALUATED	
PROVIDER/VENDOR NO.	DATE OF SURVEY

COMPLETE THIS WORKSHEET FOR EACH ZONE. WHERE CONDITIONS ARE THE SAME IN SEVERAL ZONES, ONE WORKSHEET CAN BE USED FOR THOSE ZONES.

Step 1: Determine Occupancy Risk Parameter Factors - Use Table 1.
A. For each Risk Parameter in Table 1, select and circle the appropriate risk factor value. Choose only one for each of the five Risk Parameters.

TABLE 1. OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factors Values					
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable	
	Risk Factor	1.0	1.6	3.2	4.5	
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30	
	Risk Factor	1.0	1.2	1.5	2.0	
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	1.1	1.2	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	1.0	1.1	1.2	1.5	4.0
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 year		65 Years and Over 1 Year and Younger		
	Risk Factor	1.0		1.2		

Step 2: Compute Occupancy Risk Factor (F) - Use Table 2.
A. Transfer the circled risk factor values from Table 1 to the corresponding blocks in Table 2.
B. Compute F by multiplying the risk factor values as indicated in Table 2.

TABLE 2. OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK		X		X		X		X		=	

Step 3: Compute Adjusted Building Status (R) - Use Table 2.
A. If building is classified as "NEW" use Table 3A. If building is classified as "Existing" use Table 3B.
B. Transfer the value of F from Table 2 to Table 3A or Table 3B as appropriate. Calculate R.
C. Transfer R to the block labeled R in Table 7 on page 4 of the work sheet.

TABLE 3A. (NEW BUILDINGS)

	F		R
1.0 X		=	

TABLE 3B. (EXISTING BUILDINGS)

	F		R
0.6 X		=	

*** FIRE/SMOKE ZONE is a space separated from all other spaces by floors, horizontal exits, or smoke barriers.**

SURVEYOR SIGNATURE	TITLE	DATE
FIRE AUTHORITY SIGNATURE	TITLE	DATE

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Page 1

Step 4: Determine Safety Parameter Values - Use Table 4.

A. Select and circle the safety value for each safety parameter in Table 4 that best describes the conditions in the zone. Choose only one value for each of the 13 parameters. If two or more appear to apply, choose the one with the lowest point value.

TABLE 4.

Safety Parameters	Safety Parameters Values						
1. Construction	Combustible Types III, IV, and V				NonCombustible Types I and II		
Floor or Zone	000	111	200	211 + 2HH	000	111	222, 322, 433
First	-2	0	-2	0	0	2	2
Second	-7	-2	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4
2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A				
	-5(0)[f]	0(3)[f]	3				
3. Interior Finish (Rooms)	Class C	Class B	Class A				
	-3(1)[f]	1(3)[f]	3				
4. Corridor Partitions/Walls	None or Incomplete	<½ hour	≥½ to <1 hour	≥1 hour			
	-10(0)[a]	0	1(0)[a]	2(0)[a]			
5. Doors to Corridor	No Door	<20 min FPR	≥20 min FPR	≥20 min FPR and Auto Clos.			
	-10	0	1(0)[d]	2(0)[d]			
6. Zone Dimensions	Dead End			No Dead Ends >30 ft and Zone Length Is			
	>100 ft	>50 ft to 100 ft	30 ft to 50 ft	>150 ft	100 ft to 150 ft	<100 ft	
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c]	0	1	
7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resist.				
			<1 hr	≥1 hr to <2 hr	≥2 hr		
	-14	-10	0	2(0)[a]	3(0)[a]		
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies		
	In Zone	Outside Zone	In Zone	In Adjacent Zone			
	-11	-5	-6	-2	0		
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mech. Assisted Systems by Zone				
	-5(0)[c]	0	3				
10. Emergency Movement Routes	<2 Routes	Multiple Routes					
		Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	Direct Exit(s)		
	-8	-2	0	1	5		
11. Manual Fire Alarm	No Manual Fire Alarm		Manual Fire Alarm				
			W/O F.D. Conn.	W/F.D. Conn			
	-4		1	2			
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces In Zone		
	0(3)[g]	2(3)[g]	3(3)[g]	4	5		
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building				
	0	8	10				

NOTE: [a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only)

[d] Use (0) where parameter 4 is -10.

For SI units: 1 ft = 0.3048 m

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200")

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

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Page 2

Step 5: Compute Individual Safety Evaluations – Use Table 5.

A. Transfer each of the 13 circled Safety Parameter Values from Table 4 to every unshaded block in the line with the corresponding Safety Parameter in Table 5. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Table 5 as ½ the corresponding value circled in Table 4.

B. Add the four columns, keeping in mind that any negative numbers deduct.

C. Transfer the resulting total values for S_1, S_2, S_3, S_4 to blocks labeled S_1, S_2, S_3, S_4 in Table 7 on page 4 of this sheet.

TABLE 5. INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction				
2. Interior Finish (Corr. and Exit)				
3. Interior Finish (Rooms)				
4. Corridor Partitions/Walls				
5. Doors to Corridor				
6. Zone Dimensions				
7. Vertical Openings				
8. Hazardous Areas				
9. Smoke Control				
10. Emergency Movement Routes				
11. Manual Fire Alarm				
12. Smoke Detection and Alarm				
13. Automatic Sprinklers			÷ 2 =	
Total Value	S_1=	S_2=	S_3=	S_4=

TABLE 6.
MANDATORY SAFETY REQUIREMENTS (FOR USE IN HOSPITALS OR NURSING HOMES)

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_c)	
	New	Exist.	New	Exist.	New	Exist.
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher	18	9	19(16)[a]	6	11(8)[a]	3

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING facility, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: S_a=7, S_b=10, and S_c=7

Step 6: Determine Mandatory Safety Requirement Values - Use Table 6.

A. Using the classification of the building (i.e., New or Existing) and the floor where the zone is located circle the appropriate value in each of the three columns in Table 6.

B. Transfer the three circled values from Table 6 to the blocks marked S_a, S_b, and S_c in Table 7.

C. For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

TABLE 7. ZONE FIRE SAFETY EQUIVALENCY EVALUATION								Yes	No
Containment Safety (S_1)	minus	Mandatory Containment (S_a)	≥ 0	S_1	-	S_a	= C		
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (S_b)	≥ 0	S_2	-	S_b	= E		
People Movement Safety (S_3)	minus	Mandatory People Movement (S_c)	≥ 0	S_3	-	S_c	= P		
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4	-	R	= G		

TABLE 8. FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET				
Complete one copy of this worksheet for each facility. For each consideration, select and mark the appropriate column.		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.4 and 19.3.5.6.			
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

CONCLUSIONS

1. ☐ All of the checks in Table 7 are in the "Yes" column. The level of fire safety is at least equivalent to that prescribed by the *Life Safety Code*.*

2. ☐ One of more of the checks in Table 7 are in the "No" column. The level of fire safety is not shown by this system to be equivalent to that prescribed by the *Life Safety Code*.*

*The equivalency covered by this worksheet includes the majority of considerations covered by the *Life Safety Code*. There are a few considerations that are not evaluated by this method. These must be considered separately. These additional considerations are covered in Table 8, the "Facility Fire Safety Requirements Worksheet." One copy of this separate worksheet is to be completed for each facility.

FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER K1	FACILITY NAME	SURVEY DATE * K4

K6 DATE OF PLAN APPROVAL

K3 MULTIPLE CONSTRUCTION

TOTAL NUMBER OF BUILDINGS _____

NUMBER OF THIS BUILDING _____

☐ A BUILDING
B WING
C FLOOR
D APARTMENT UNIT

LSC FORM INDICATOR

Health Care Form		
12	2786R	2000 EXISTING
13	2786R	2000 NEW

ASC Form		
14	2786U	2000 EXISTING
15	2786U	2000 NEW

ICF/MR Form		
16	2786V, W, X	2000 EXISTING
17	2786V, W, X	2000 NEW

* K7 ☐ SELECT NUMBER OF FORM USED FROM ABOVE

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)

K8: ☐ 1 PROMPT
2 SLOW
3 IMPRACTICAL

LARGE

K8: ☐ 4 PROMPT
5 SLOW
6 IMPRACTICAL

APARTMENT HOUSE

K8: ☐ 7 PROMPT
8 SLOW
9 IMPRACTICAL

(Check if K29 or K56 are marked as not applicable in the 2786 M, R, T, U, V, W, X and Y.)

K29: ☐ K56: ☐

ENTER E – SCORE HERE

K5: ☐ e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON *(Check all that apply)*

A1. ☐ (COMP. WITH ALL PROVISIONS)
A2. ☐ (ACCEPTABLE POC)
A3. ☐ (WAIVERS)
A4. ☐ (FSES)
A5. ☐ (PERFORMANCE BASED DESIGN)

FACILITY DOES NOT MEET LSC

B. ☐

K0180

A. ☐ FULLY SPRINKLERED (All required areas are sprinklered)
B. ☐ PARTIALLY SPRINKLERED (Not all required areas are sprinklered)
C. ☐ NONE (No sprinkler system)

* MANDATORY

DEPARTMENT OF HEALTH & HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

2000 CODE

Form Approved
OMB No. 0938-0942

FIRE SAFETY SURVEY REPORT - AMBULATORY SURGICAL CENTERS Medicare	1. (A) PROVIDER NUMBER K1	1. (B) MEDICAID I.D. NO. K2

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY	2. (A) MULTIPLE CONSTRUCTION (BLDGS.) A. BUILDING _____ B. WING _____ C. FLOOR _____ K3	2. (B) ADDRESS OF FACILITY (STREET, CITY, STATE, ZIP CODE)	A. ☐ Fully Sprinklered (All required areas are sprinklered) B. ☐ Partially Sprinklered (Not all required areas are sprinklered) C. ☐ None (No sprinkler system) K2160
☐ Initial Survey ☐ Resurvey	3. DATE OF SURVEY K4	☐ New ☐ Existing	

CHECK ONE

Facility is:
- ☐ Physically located in a hospital
- ☐ Free-standing: only occupancy in building
- ☐ Located in an Office Occupancy
- ☐ Located in a Mercantile/Business Occupancy
  Indicate Occupancy _____
- ☐ Other (specify) _____

- ☐ Accredited by _____
- ☐ Non Accredited

DATE OF BLDG. PERMIT OR PLAN APPROVAL: K5	DATE FIRST OCCUPIED AS AMBULATORY SURGICAL CTR.

If facility is located in a hospital or hospital owned/operated, was facility surveyed as part of Hospital LSC Survey?

☐ YES ☐ NO

A. ☐ The facility MEETS based upon:
1. ☐ Compliance with all provisions
2. ☐ Acceptance of a Plan of Correction
3. ☐ Recommended waivers
5. ☐ Performance Based Design

B. ☐ The facility DOES NOT MEET THE STANDARD.

K9

SURVEYOR (SIGNATURE)	TITLE	OFFICE	DATE
SURVEYOR ID K10			
REVIEW AUTHORITY OFFICIAL (SIGNATURE)	TITLE	OFFICE	DATE

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-0942. The time required to complete this information collection is estimated to average 5 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: CMS, Attn: PRA Reports Clearance Officer, 7500 Security Boulevard, Baltimore, Maryland 21244-1850.

Form CMS-2786J (xx/xx) Previous Versions Obsolete

Page 1

ID PREFIX		MET	NOT MET	N/A	REMARKS	2000 CODE
	CONSTRUCTION					
K12	Buildings two or more stories in height and of Type II(000),III (200) V (000) construction are equipped throughout with a supervised approved automatic sprinkler system in accordance with section 9.7. 20.1.6.3, 21.1.6.3					
	Number of stories in the building _____					
K13	Construction Type _____					
	EXITS					
K32	At least two exits, located remote from each other are provided for each floor or fire section of the building. 20.2.4.1, 21.2.4.1					
K42	Rooms or suites of rooms of more than 2,500 sq. ft. have at least two exit access doors located remote from each other. 20.2.4.2, 21.2.4.2					
K37	Dead-end corridors do not exceed 50 ft. (Note: A common path of travel for the first 25 ft. is permitted.) 39.2.5.1, 39.2.5.2, 39.2.5.3					
K36	Travel distance between any room door required as exit access and an exit does not exceed 100 ft. The travel distance between any point in a room and an exit does not exceed 150 ft. (Note: In approved automatic sprinklered buildings, the travel distances may be increased by 50 ft.). 20.2.6.2, 21.2.6.2					
K112	At least 50 percent of the required exit capacity from upper floors discharges directly to the exterior of the building in accordance with section 7.7, 38.2.7, 39.2.7, 21.1.6.1, 20.1.6.1					
K113	Designated aisles, corridors, passageways, and exitways are provided with illumination in accordance with section 7.8. 20.2.8, 21.2.8					
K46	Emergency illumination is provided in accordance with section 7.9. 20.2.9.1, 21.2.9.1					
K47	Exits and ways of travel thereto are marked in accordance with section 7.10. 20.2.10, 21.2.10					
K43	Doors of patient treatment, diagnostic, or recovery rooms arranged to provide a clear width of not less than 32 inches and existing 34 inch door. 20.2.3.3, 21.2.3.3					
K40	Exit and exit access doors are at least 34 inches wide. 20.2.3.3, 21.2.3.3					

Form CMS-2786J (xx/xx) Previous Versions Obsolete Page 2

ID PREFIX		MET	NOT MET	N/A	REMARKS	2000 CODE
	LABORATORIES					
K31	Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered a severe hazard shall be protected in accordance with NFPA 99. (Laboratories that are not considered to be a severe hazard shall meet the provision of K29.) Laboratories in health care occupancies and medical and dental offices shall be in accordance with NFPA 99, Standard for Health Care Facilities and NFPA101. Ventilating Systems shall comply with NFPA 101. 20.3.2.1, 21.3.2.1, 8.4.4, 9.2.4					
K136	Procedures for laboratory emergencies shall be developed. Such procedures shall include alarm actuation, evacuation, and equipment shutdown procedures, and provisions for control of emergencies that could occur in the laboratory, including specific detailed plans for control operations by an emergency control group within the organization or a public fire department in accordance with NFPA 99 and NFPA 101. 10.2.1.3.1, 20.3.2.1, 21.3.2.1					
K131	Emergency procedures established for controlling chemical spills shall be in accordance with NFPA 99. 10.2.1.3.2					
K132	Continuing safety education and supervision shall be provided, incidents shall be reviewed monthly, and procedures reviewed annually shall be in accordance with NFPA 99. 10.2.1.4.2					
K133	Fume hoods shall be in accordance with NFPA 99. 5.4.3, 5.6.2					
K134	Emergency Shower: Where the eyes or body of any person can be exposed to injurious corrosive materials, suitable fixed facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. Fixed eye baths shall be designed and installed to avoid injurious water pressure shall be in accordance with NFPA 99. 10.6					
K135	Flammable and combustible liquids used from and stored in approved containers shall be in accordance with NFPA 30, Flammable and Combustible Liquids Code, and NFPA 45, Standard on Fire Protection for Laboratories Using Chemicals. Storage cabinets for flammable and combustible liquids shall be constructed in accordance with NFPA 30, Flammable and Combustible Liquids Code, NFPA 99. 4.3, 10.7.2.1					
K39	Corridors for exit access are at least 44 inches wide. 20.2.3.2, 21.2.3.2					

Form CMS-2786J (xx/xx) Previous Versions Obsolete Page 3

ID PREFIX		MET	NOT MET	N/A	REMARKS	2000 CODE
	EMERGENCY POWER					
K105	Where general anesthesia or life support equipment is used, an emergency power system is provided in accordance with NFPA 99. 20.2.9.2, 21.2.9.2 Indicate type_____					
	VERTICAL OPENING PROTECTION					
K20	Vertical openings such as stairways, elevator shaftways, escalators, and building service shaftways are enclosed in accordance with section 8.2.5, 8.2.5.2, 38.3.1, 39.3.1 (Note: Some exceptions are permitted in 38.3.1.)					
K21	Any door with a required fire protection rating, such as stairways, exit passageways, horizontal exits, smoke barriers, or hazardous areas enclosures, if held open, is arranged to close automatically by the actuation of the manual fire alarm system and either smoke detectors arranged to detect smoke on either side of the opening or a complete automatic sprinkler system. 20.2.2.3, 21.2.2.3					
	HAZARDOUS AREA PROTECTION					
K29	Hazardous areas separated from other parts of the building by fire barriers have at least one hour fire resistance rating or such areas are enclosed with partitions and doors and the area is provided with an automatic sprinkler system. High hazard areas are provided with both fire barriers and sprinkler systems 38.3.2, 39.3.2					

Area	Automatic Sprinkler	Separation	N/A
General Storage			
Boiler Rooms			
Furnace Rooms			
Storage Rooms			
Maintenance Shops			
Paint Shops			
Laundries (over 100 square feet)			

Form CMS-2786J (xx/xx) Previous Versions Obsolete Page 4

ID PREFIX		MET	NOT MET	N/A	REMARKS	2000 CODE
K211	2000 EXISTING Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 19.3.2.7, CFR 416.44					
	2000 NEW Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 18.3.2.7, CFR 416.44					
	MEDICAL GASES, AND ANESTHETIZING AREAS					
K76	Medical gas storage and administration areas shall be protected in accordance with NFPA 99, Standards for Health Care Facilities, and NFPA 101. (a) Oxygen storage locations of greater than 3,000 cu. ft. are enclosed by a one hour separation. (b) Locations for supply systems of greater than 3,000 cu. ft. are vented to the outside. 4.3.1.1.2, 20.3.2.4, 21.3.2.4					
K77	Piped in medical gas systems comply with NFPA 99.					

Form CMS-2786J (xx/xx) Previous Versions Obsolete Page 5

ID PREFIX		MET	NOT MET	N/A	REMARKS	2000 CODE
K78	Anesthetizing locations shall be protected in accordance with NFPA 99, Standard for Health Care Facilities and NFPA 101. (a) Shutoff valves are located outside each anesthetizing location and arranged so that shutting off one room or location will not affect others. (b) Relative humidity is maintained equal to or greater than 35%. NFPA 99 4.3.1.2.3(n) and 5.4.1.1, 18.3.2.3, 19.3.2.3					
K140	(a) Master alarm panels are in two separate locations and have audible and visible signals. (b) There are high/low alarms for +/- 20% operating pressure. This section shall be in accordance with NFPA 99, 4.3.1.2.2 (c) Where a level 1 gas system is used, one alarm panel that complies with 4.3.1.2.2(b) 3 a, b, c and d and with 4.3.1.2.2(c) 2 and 5 shall be permitted. (4.4.1 exception No. 4).					
K141	Non-smoking and no smoking signs in areas where oxygen is used or stored shall be in accordance with NFPA 99. 8.6.4.2					
K142	All occupancies containing hyperbaric facilities shall comply with NFPA 99, Standard for Health Care Facilities, Chapter 19.					
K143	Transferring of oxygen shall be: ❑ (a) separated from any portion of a facility wherein patients are housed, examined, or treated by a separation of a fire barrier of one hour fire-resistive construction; and ❑ (b) the area that is mechanically ventilated, sprinklered, and has ceramic or concrete flooring; and ❑ (c) in an area that is posted with signs indicating that transferring is occurring, and that smoking in the immediate area is not permitted in accordance with NFPA 99 and Compressed Gas Association. 8.6.2.5.2					
	ELECTRICAL					
K106	The ASC with life support equipment has a Type I Essential Electrical System powered by a generator with a transfer switch and separate power supply. The EES is in accordance with NFPA 99. 3.4.2.2, 3.4.2.1.4					
K144	Generators are inspected weekly and exercised under load for 30 minutes per month and shall be in accordance with NFPA 99. 3.4.4.1, NFPA110, 8.4.2					

Form CMS-2786U (xx/xx) Previous Versions Obsolete Page 6

ID PREFIX		MET	NOT MET	N/A	REMARKS	2000 CODE
K145	The Type I EES is divided into the critical branch, life safety branch and the emergency system and shall be in accordance with NFPA 99. 3.4.2.2.2					
K146	The ASC with no life support equipment shall have an alternate source of power separate and independent from the normal source that will be effective for minimum of 11/2 hour after loss of normal source NFPA 99. 3.6					
K147	Electrical wiring and equipment shall be in accordance with NFPA 70, National Electrical Code 9.1.2, 20.5.1					
	INTERIOR FINISH					
K14	Interior finish on walls and ceilings of exits, enclosed corridors, and exit access furnishing shall be Class A or B (offices Class A, B, or C) 38.3.3.2, 39.3.3.2					
	FIRE ALARM SYSTEMS					
K51	A manual fire alarm system, not a pre-signal type, is provided to automatically warn the building occupants. Fire alarm system has initiation notification and control function. The fire alarm system is arranged to automatically transmit an alarm to summon the fire department. 20.3.4.1, 21.3.4.1					
	CORRIDOR SEPARATION					
K17	Corridors used as access to exit are separated from use areas by partitions with a fire resistance rating of at least one hour. Fire resistance rating not required if building fully sprinklered. Doors have at least one 20 minute fire protection rating and are equipped with a positive latch and closing device. Vision panels, if provided, in partitions or doors therein are not to exceed 20 inches and install at or below half distance from floor to room ceiling. 20.3.6.2, 38.3.6.1 (Indicate N/A for existing occupancies, open floor areas with available exits, corridors in a space occupied by a single tenant, and buildings provided with complete automatic sprinkler systems.)					
	OCCUPANCY SEPARATION					
K114	Ambulatory health care occupancies are separated from other tenants and occupancies by fire barriers with at least a 1 hour fire resistance rating. Doors in such barriers are solid bonded core wood of 1¾ inches or equivalent and are equipped with a positive latch and closing device. Vision panels, if provided in fire barriers or doors shall be of fixed fire window assemblies in accordance with 8.2.3.2.2.					

ID PREFIX		MET	NOT MET	N/A	REMARKS	2000 CODE
	SMOKE BARRIERS					
K115	Ambulatory health care facilities are divided into at least two smoke compartments with smoke barriers having at least 1 hour fire resistance rating. Doors in smoke barriers are equipped with positive latcher. Doors shall be constructed of not less than 1¾ inch thick solid bonded core wood or equivalent. Vision panels are provided and are of fixed wire glass limited to 1,296 sq. inch per panel. (Indicate N/A for facilities of less than 5,000 sq. ft. with an approved smoke detection system, and less than 10,000 sq. ft. with an approved supervicsed sprinkler system in accordance with 9.7.) 20.3.7.1, 20.3.7.2, 20.3.7.3, 21.3.7.1, 21.3.7.2, 21.3.7.2					
	PORTABLE FIRE EXTINGUISHERS					
K64	Portable fire extinguishers are provided. 20.3.5.2, 21.3.5.2					
	HIGH RISE BUILDINGS					
K116	Buildings over 75 ft. in height housing ambulatory health care facilities are provided with a complete approved automatic sprinkler system shall be in accordance with 11.8.					
	BUILDING SERVICES					
K117	Utilities shall comply with section 9.1 Electrical Wiring and Equipment and shall be in accordance with NFPA 70. National Electrical Code. Required Emergency Generators shall be tested and maintained in accordance with NFPA 110, Standard for Emergency and Standby Power Systems.					
K67	Heating, ventilating, and air-conditioning shall comply with the manufacturer's specifications and section 9.2. 20,5.2.1, 21.5.2.1					
K70	Portable space heating devices are prohibited except portable space heating devices shall be permitted to be used in non-sleeping staff and employee areas where the heating elements of such devices do not exceed 212°F (100°C). 20.7.8, 21.7.8					
K118	Elevators, dumbwaiters, and vertical conveyors shall comply with section 9.4. 20.5.3, 21.5.3					
K71	Rubbish chutes, incinerators, and laundry chutes shall comply with section 7.5. 20.5.4, 21.5.4					

Form CMS-2786U (xx/xx) Previous Versions Obsolete Page 8

ID PREFIX		MET	NOT MET	N/A	REMARKS	2000 CODE
	EMERGENCY PLAN, FIRE DRILLS					
K48	There is a written plan for the protection of all patients and for their evacuation in the event of an emergency. 20.7.1.1, 21.7.1.1					
K50	Fire drills are held at unexpected times under varying conditions, at least quarterly on each shift. The staff is familiar with procedures and is aware that drills are part of established routine. 20.7.1.2, 21.7.1.2					
	SMOKING REGULATIONS					
K66	Smoking regulations are adopted, and include the posting of "NO SMOKING" signs or shall be posted with the international symbol for no smoking in any room, ward, or compartment where flammable liquids, combustible gases or oxygen are used or stored, and in any other hazardous location. 20.7.4, 21.7.4					
	FURNISHINGS AND DECORATIONS					
K72	Draperies, curtains and other loosely hanging fabrics and films serving as furnishings, except curtains at shower, shall be in accordance with NFPA 701. 20.7.5.1, 21.7.5.1					
K73	Newly introduced upholstered furniture shall be in accordance with NFPA 260, 261 unless building is fully sprinklered. 20.7.5.2, 21.7.5.2 Newly introduced mattresses shall meet NFPA 267. 20.7.5.3, 21.7.5.3					
K74	Combustible decorations shall be flame retardant. 20.7.5.4, 21.7.5.4					
K75	Solid linen or trash collection receptacles shall not exceed 32 gallons (121L) in capacity.					
	Mobile soiled linen or trash collection receptacles with capacity greater than 32 gallons (121L) shall be located in a room protected as a hazardous area. 20.7.5.3, 21.7.5.5					
	MISCELLANEOUS					
K130	List in the REMARKS section, any items that are not listed previously, but are deficient. This information along with the applicable Life Safety Code or NFPA Standard citation, should be included on Form CMS-2567.					

Form CMS-2786U (xx/xx) Previous Versions Obsolete Page 9

RECOMMENDATION FOR WAIVER OF SPECIFIC LIFE SAFETY CODE PROVISIONS

For each item of the Life Safety Code recommended for waiver, list the survey report form item number and state the reason for the conclusion that: (a) the specific provision of the code, if rigidly applied, would result in unreasonable hardship on the facility, and (b) the waiver of such unmet provisions will not adversely affect the health and safety of the patients. (If additional space is required, use additional sheet.)

PROVISION NUMBER(S)	JUSTIFICATION

Surveyor *(Signature)*	Title	Office	Date
Fire Authority Official *(Signature)*	Title	Office	Date

Form CMS-2786U (xx/xx) Previous Versions Obsolete

Page 10

FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER K1	FACILITY NAME	SURVEY DATE * K4

K6 DATE OF PLAN APPROVAL

K3 MULTIPLE CONSTRUCTION
TOTAL NUMBER OF BUILDINGS _____
NUMBER OF THIS BUILDING _____

A BUILDING
B WING
C FLOOR
D APARTMENT UNIT

LSC FORM INDICATOR

Health Care Form		
12	2786R	2000 EXISTING
13	2786R	2000 NEW

ASC Form		
14	2786U	2000 EXISTING
15	2786U	2000 NEW

ICF/MR Form		
16	2786V, W, X	2000 EXISTING
17	2786V, W, X	2000 NEW

* K7 SELECT NUMBER OF FORM USED FROM ABOVE

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)
K8
1 PROMPT
2 SLOW
3 IMPRACTICAL

LARGE
K8:
4 PROMPT
5 SLOW
6 IMPRACTICAL

APARTMENT HOUSE
K8:
7 PROMPT
8 SLOW
9 IMPRACTICAL

(Check if K29 or K56 are marked as not applicable in the 2786 M, R, T, U, V, W, X and Y.)

K29 K56:

ENTER E – SCORE HERE

K5: e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON *(Check all that apply)*

A1. (COMP. WITH ALL PROVISIONS)
A2. (ACCEPTABLE POC)
A3. (WAIVERS)
A4. (FSES)
A5. (PERFORMANCE BASED DESIGN)

FACILITY DOES NOT MEET LSC

B.

K0180
A. FULLY SPRINKLERED (All required areas are sprinklered)
B. PARTIALLY SPRINKLERED (Not all required areas are sprinklered)
C. NONE (No sprinkler system)

* MANDATORY

Form CMS-2786U (xx/xx) Previous Versions Obsolete Page 11

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

2000 CODE ICFs/MR

Form Approved
OMB No. 0938-0242

FIRE SAFETY SURVEY REPORT - 2000 LIFE SAFETY CODE
Intermediate Care Facilities for the Mentally Retarded
SMALL

1. (A) PROVIDER NO. K1

1. (B) MEDICAID I.D. NO. K2

PART I – Chapter 6 – NFPA 101A – A Procedure for Determining Evacuation Capability
PART II – Chapter 32 & 33 – Residential Board & Care Occupancies – Requirements
PART III – Chapter 7-101A Fire Safety Evaluation System for Board & Care (Optional) – CMS-2786Y

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY

2. (A) MULTIPLE CONSTRUCTION (BLDGS) K3
A. BUILDING _____
B. WING _____
C. FLOOR _____

2. (B) ADDRESS OF FACILITY (STREET, CITY, STATE, ZIP CODE)

A. ☐ Fully Sprinklered (All required areas are sprinklered)
B. ☐ Partially Sprinklered (Not all required areas are sprinklered)
C. ☐ None (No sprinkler system)
K2193

3. SURVEY FOR
☐ MEDICARE ☐ MEDICAID

4. DATE OF SURVEY K4

DATE OF PLAN APPROVAL K5

SURVEY UNDER: K7
5. ☐ 2000 EXISTING 6. ☐ 2000 NEW

E-SCORE
K5

E-Score	Level of Evacuation Difficulty
≤ 1.5	Prompt
> 1.5 ≤ 5.0	Slow
> 5.0	Impractical

5. SURVEY FOR CERTIFICATION OF: SMALL FACILITY - LEVEL OF EVACUATION DIFFICULTY *(Check one)*
1. ☐ Prompt 2. ☐ Slow 3. ☐ Impractical
K8

6. BED COMPOSITION
a. TOTAL NO. OF BEDS IN THE FACILITY

b. NUMBER OF ICF/MR BEDS CERTIFIED FOR MEDICAID

7. A. ☐ THE FACILITY MEETS, BASED UPON *(check all appropriate boxes)*:
1. ☐ COMPLIANCE WITH ALL PROVISIONS 2. ☐ ACCEPTANCE OF A PLAN OF CORRECTION 4. ☐ FSES 5. ☐ PERFORMANCE BASED DESIGN
B. ☐ THE FACILITY DOES NOT MEET THE STANDARD
K9

SURVEYOR *(Signature)*	TITLE	OFFICE	DATE
SURVEYOR ID K10			
FIRE AUTHORITY OFFICIAL *(Signature)*	TITLE	OFFICE	DATE

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-0242. The time required to complete this information collection is estimated to average 5 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to CMS, Attn: PRA Reports Clearance Officer, 7500 Security Boulevard, Baltimore, Maryland 21244-1850.

Form CMS-2786V (xx/xx) Previous Versions Obsolete

Page 1

INSTRUCTIONS FOR COMPLETING THE FORM (CMS-2786V)
SMALL FACILITIES —16 BEDS OR LESS

1. **Complete a Worksheet for Rating Residents** (CMS-2786M) for each resident in the facility.

2. **Complete the first few pages of this form, a Worksheet for Calculating Evacuation Difficulty Score (Chapter 6 NFPA 101A, 2001 Edition).**
   Note: This is the ONLY method permitted to determine Level of Evacuation Difficulty in SMALL facilities.

3. **Transfer the E-Score** obtained in Scoresheet F2 C (Page 5) to the E-SCORE block on Page 1 of this form.

4. **Complete either Chapter 31 or 32** Requirements or the FSES/BC Appendix G - Rating the Building.

   A. **If completing Chapter 31 or 32** Requirements:

      1. PROMPT - Complete ONLY the PROMPT section of this form.
      2. SLOW - Complete both PROMPT and SLOW sections of this form.
      3. IMPRACTICAL - Complete all three sections of this form PROMPT, SLOW and IMPRACTICAL.

   B. **If completing the FSES/BC - Appendix G** - Rating The Building

      1. You **must** also complete the Chapter 31 or 32 requirements. An FSES building evaluation cannot be done without completing the usual survey form pages for these Chapters.
      2. You may use the FSES Health Care to evaluate the building (Form CMS-2786T), but if you choose to do so, you must also use the LSC Survey Report for Health Care Form CMS-2786R.

Worksheet for Calculating Evacuation Difficulty Score (E-Score)

F-2

BEFORE FILLING OUT THIS WORKSHEET:

- Please read the Instruction Manual.
- Make sure you have the completed "Worksheets for Rating Residents" (CMS-2786M) for each resident.
- Determine whether the requirements for using the Evacuation Difficulty Index have been satisfied by checking the one box to the left of each question below that shows whether the answer to the question is "YES" or "NO."

☐ Yes ☐ No 1. Has a protection plan been developed and written and have all staff members counted in the calculation of E-Scores been trained in its implementation?

☐ Yes ☐ No 2. Is the total available staff at any given time able to handle the individual evacuation needs of each resident who may be in the residence?

☐ Yes ☐ No 3. Can every staff member counted in the calculation of E-Scores meaningfully participate in the evacuation of every resident?

☐ Yes ☐ No 4. Are all staff members counted in the calculation of E-Scores required to remain in the residence with only the exceptions listed in the Instruction Manual?

☐ Yes ☐ No 5. Were at least twelve fire drills conducted during the year?

This worksheet is filled out for the staff "Shift"

From _____ To _____

(You must fill out this worksheet for the time of day, week, etc., when the ratings for the combination of staff and residents yields the highest E-Score. This period of time will usually be late at night. When it is not obvious which time period has the highest E-Score, complete a separate worksheet for all candidate time periods and use the one having the highest E-Score.)

F-2A Finding the Total Resident Score

1. List each resident's name in the scoresheet below. (Scoresheet F-2A)
2. For each resident, transfer the Evacuation Assistance Score (Part F-1B) from his/her Worksheet for Rating Residents (Step 1).
3. Add the Evacuation Assistance Score for all the residents and write the answer in the appropriate space at the bottom of Scoresheet F-2A.

Scoresheet F-2A RESIDENT SCORES					
Resident's Name	Evacuation Assistance Score	Resident's Name	Evacuation Assistance Score	Resident's Name	Evacuation Assistance Score
				Evacuation Assistance TOTAL	

F-2B Finding the Staff Shift Score

1. In Scoresheet F-2B (below), list the names of staff members who are required to remain in the group home during the time period (shift) specified on the front page of this worksheet.
2. Determine whether the effectiveness of the alarm system is rated as "assured" or "not assured" as explained in the Instruction Manual.
3. Using the appropriate "assured" or "not assured" column in the table below, find each staff member's Promptness of Response Score for the time period specified. Write each staff member's score in the appropriate space in Scoresheet F-2B.
4. Add the staff members' Promptness of Response Scores and write the total in the appropriate space in Scoresheet F-2B.

Scoresheet F-2B STAFF SCORES			
Staff's Name	Promptness of Response Score	Staff's Name	Promptness of Response Score
		Staff Shift TOTAL	

PROMPTNESS OF RESPONSE SCORES		
Staff Availability	Alarm Effectiveness	
	Assured	Not Assured
Standby or asleep	16	2
Immediately available	20	2
Immediately available & close by	20	10

NOTE: If the facility is a large residential facility, staff members may be responsible for assisting the residents in a fire/smoke zone, but may also have responsibilities for residents in other fire/smoke zones. See the glossary for Step 2 for the special procedure for assigning Promptness of Response Scores.

F-2C Finding the Home's Evacuation Difficulty Score

1. Rate the home on the factor below by checking the circle that best describes the home.

	Vertical Distance From Bedrooms to Exits		
	All BR on floor with direct exits	Any BR one floor from exit	Any BR two or more floors from exit
Small Facility	○ score = 0.8	○ score = 1.0	○ score = 1.2
Large Facility or Apartment	○ score = 1.0		

2. Write the score for the category you checked in the appropriate box in Scoresheet F-2C below.
3. Compute the E-Score as show in Scoresheet F-2C:
   a. Multiply the Resident Score Total by the score for Vertical Distance from Bedrooms to Exits.
   b. Divide the answer by the Staff Shift Score Total to find the Evacuation Difficulty Score (E-Score).

Scoresheet F-2C CALCULATION OF E-SCORE

Resident Score Total [ ] X Vertical Distance from Bedrooms to Exits [ ]

Staff Shift Score Total [ ]

= ENTER THIS SCORE on COVER of THIS FORM

E-SCORE [ ]

4. Determine and record Level of Evacuation Difficulty appropriate to the Calculated E-Score; use Scoresheet F-2D.

Scoresheet F-2D

E-Score	Level of Evacuation Difficulty
≤ 1.5	Prompt
> 1.5 ≤ 5.0	Slow
> 5.0	Impractical

Level of Evacuation Difficulty [ ]

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ID PREFIX	SMALL FACILITY PROMPT EVACUATION	MET	NO MET	N/A	REMARKS
	BUILDING CONSTRUCTION				
	No Requirements				
	HAZARDOUS AREAS				
K29	2000 EXISTING Any hazardous area that is on the same floor as, and is in or abut, a primary means of escape or a sleeping room shall be protected by one of the following means. (a) Protection shall be an enclosure with a fire resistance rating of not less than 1 hour, with a self-closing or automatic closing fire door in accordance with 7.2.1.8 that has a fire protection rating of not less than ¾ hour. (b) Protection shall be automatic sprinkler protection, in accordance with 33.2.3.5, and a smoke partition, in accordance with 8.2.4, located between the hazardous area and the sleeping area or primary escape route. Any doors in such separation shall be self-closing or automatic closing in accordance with 7.2.1.8. 33.2.3.2.2.				
	2000 NEW Any hazardous area that is on the same floor as, and is in or abut, a primary means of escape or a sleeping room shall be protected by one of the following means: (a) Protection shall be an enclosure with a fire resistance rating of not less than 1 hour, with a self-closing or automatic closing fire door in accordance with 7.2.18 that has a fire protection rating of not less than ¾ hour. The enclosure shall be protected by an automatic fire detection system connected to the fire alarm system provided in 32.2.3.4.1. (b) Protection shall be automatic sprinkler protection, in accordance with 32.2.3.5, and a smoke partition, in accordance with 8.2.4, located between the hazardous area and the sleeping area or primary escape route. Any doors in such separation shall be self-closing or automatic closing in accordance with 7.2.1.8, 32.2.3.2.2.				

ID PREFIX		MET	NO MET	N/A	REMARKS
K211	2000 EXISTING Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 19.3.2.7, CFR 483.70				
	2000 NEW Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 18.3.2.7, CFR 483.470				
K119	2000 EXISTING Other hazardous areas shall be protected in accordance with 33.2.3.2.3 by one of the following: (1) An enclosure having a fire resistance rating of not less than ½ hour, with a self-closing or automatic-closing door in accordance with 7.2.1.8 that is equivalent to not less than a 1¾ inch (4.4 cm) thick, solid-bonded wood core construction. (2) Automatic sprinkler protection in accordance with 33.2.3.5, regardless of enclosure.				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	2000 NEW Other hazardous areas shall be protected in accordance with 32.2.3.2.3 by one of the following: (1) An enclosure having a fire resistance rating of not less than ½ hour, with a self-closing or automatic closing door in accordance with 7.2.1.8 that is equivalent of not less than 1¾ inch (4.4 cm) thick, solid-bonded wood core construction and is protected by an automatic fire detection system connected to the fire alarm system provided in 32.2.3.1. (2) Automatic sprinkler protection in accordance with 32.2.3.5, regardless of enclosure.				
	FIRE ALARM SYSTEMS				
K51	2000 EXISTING A manual fire alarm system shall be provided in accordance with Section 9.6, 33.2.3.4.1. ❑ *Exception No 1: Where there are interconnected smoke detectors meeting the requirements of 33.2.3.4.3 and there is not less than one manual fire alarm box per floor arranged to continuously sound the smoke detector alarms.* ❑ *Exception No. 2: Other manually activated continuously sounding alarms acceptable to the authority having jurisdiction.*				
	2000 NEW A manual fire alarm system shall be provided in accordance with Section 9.6, 32.2.3.4.1.				
K155	Where a required fire alarm system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shut-down until the fire alarm system has been returned to service. 9.6.1.8				

ID PREFIX		MET	NO MET	N/A	REMARKS
	SMOKE SYSTEMS				
K53	2000 EXISTING Approved smoke alarms shall be provided in accordance with 9.6.2.10. These alarms shall be powered from the building electrical system and when activated, shall initiate an alarm that is audible in all sleeping areas. Smoke alarms shall be installed on all levels, including basement but excluding crawl spaces and unfinished attics. Additional smoke alarms shall be installed for living rooms, dens, day rooms, and similar spaces. 33.2.3.4.3. ❑ *Exception No 1: Buildings protected throughout by an approved automatic sprinkler system, in accordance with 33.2.3.5, that uses quick response or residential sprinklers, and protected with approved smoke alarms installed in each sleeping room in accordance with 9.6.2.10, that are powered by the building electrical system.* ❑ *Exception No. 2: Where buildings are protected throughout by an approved automatic sprinkler system, in accordance with 33.3.2.5, that uses quick-response or residential sprinklers, with existing battery-powered smoke alarms in each sleeping room, and where, in the opinion of the authority having jurisdiction, the facility has demonstrated that testing, maintenance, and a battery replacement program ensure the reliability of power to smoke alarms.*				
	2000 NEW Approved smoke alarms shall be provided in accordance with 9.6.2.10, 32.2.3.4.3.1. Smoke alarms shall be installed on all levels, including basements but excluding crawl spaces and unfinished attics. Additional smoke alarms shall be installed for all living areas as defined in 3.3.119. ❑ *Exception: Smoke alarms shall not be required in buildings protected throughout by an approved automatic sprinkler system in accordance with 32.2.3.5.*				
K56	2000 EXISTING Where an automatic sprinkler system is installed, for either total or partial building coverage, the system shall be in accordance with Section 9.7, 33.2.3.5.2 and shall activate the fire alarm system in accordance with 33.2.3.4.1. The adequacy of the water supply shall be documented to the authority having jurisdiction.				

ID PREFIX		MET	NO MET	N/A	REMARKS
	❑ *Exception No. 1: In prompt evacuation facilities, an automatic sprinkler system in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in One and two Family Dwellings and Manufactured Homes, shall be permitted. Automatic sprinklers shall not be required in closets not exceeding 24 sq. ft. and in bathrooms not exceeding 55 sq. ft., provided that such spaces are finished with lath and plaster or materials providing a 15 minute thermal barrier.* ❑ *Exception No. 2: Not applicable* ❑ *Exception No. 3: In prompt and slow evacuation capability facilities where an automatic sprinkler system is in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, automatic sprinklers shall not be required in closets not exceeding 24 sq. ft and in bathrooms not exceeding 55 sq. ft., provided that such spaces are finished with lath and plaster or material providing a 15 minute thermal barrier.* ❑ *Exception No. 4: In prompt and slow evacuation capability facilities up to and including four stories in height, systems in accordance with NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be permitted.* ❑ *Exception No. 5: Not applicable* ❑ *Exception No. 6: Initiation of the fire alarm system shall not be required for existing installations in accordance with 33.2.3.5.5.*				
	2000 NEW Where an automatic sprinkler system is installed, for either total or partial building coverage, the system shall be in accordance with Section 9.7 and shall initiate the fire alarm system in accordance with 32.2.3.4.1, 32.2.3.5.2. The adequacy of the water supply shall be documented to the authority having jurisdiction. ❑ *Exception No. 1: In prompt evacuation facilities, an automatic sprinkler system in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes, shall be permitted. Facilities with more than eight residents shall be permitted. Facilities with more than eight residents shall be treated as two-family dwellings with regard to water supply. Additionally entrance foyers shall be sprinklered.*				

ID PREFIX		MET	NO MET	N/A	REMARKS
	❑ *Exception No. 2: Not applicable* ❑ *Exception No. 3: In prompt and slow evacuation capability facilities where an automatic sprinkler system is in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, automatic sprinklers shall not be required in closets not exceeding 24 sq. ft and in bathrooms not exceeding 55 sq. ft., provided that such spaces are finished with lath and plaster or material providing a 15 minute thermal barrier.* ❑ *Exception No. 4: In prompt and slow evacuation capability facilities up to and including four stories in height, systems in accordance with NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be permitted.* ❑ *Exception No. 5: Not applicable* ❑ *Exception No. 6: Initiation of the fire alarm system shall not be required for existing installations in accordance with 32.2.3.5.5.*				
K154	Where a required automatic sprinkler system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch system be provided for all parties left unprotected by the shutdown until the sprinkler system has been returned to service. 9.7.6.1				
	A. Date sprinkler system last checked and necessary maintenance provided. _____				
	B. Show who provided the service. _____				
	C. Note the source of the water supply for the automatic sprinkler system._____				
	(Provide, in REMARKS, information on coverage for any non-required or partial automatic sprinkler system.)				
K144	2000 NEW All facilities shall be protected throughout by an approved automatic sprinkler system in accordance with 32.2.3.5.2, 32.2.3.5.1. Quick response or residential sprinklers shall be provided. ❑ *Exception No. 1: In conversions, sprinklers shall not be required in small board and care homes with a rating of prompt evacuation capability and serving eight or fewer residents.* ❑ *Exception No. 2: Standard response sprinklers shall be permitted for use in hazardous areas in accordance with 32.2.3.2.*				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	INTERIOR FINISH				
K14	2000 EXISTING Interior wall and ceiling finish shall be Class A or Class B in accordance with section 10.2, 33.2.3.3. There shall be no requirements for interior floor finish. ❑ *Exception: Class C interior wall and ceiling finish shall be permitted in prompt evacuation capability facilities.*				
	2000 NEW Interior wall and ceiling finish materials complying with 10.2.3 shall be Class A or Class B. 32.2.3.3.2. ❑ *Exception: Class C interior wall and ceiling finish shall be permitted in prompt evacuation capability facilities.*				
	SEPARATION OF SLEEPING ROOMS				
K17	2000 EXISTING The separation walls of sleeping rooms shall be capable of resisting fire for not less than ½ hour, which is considered to be achieved if the partitioning is finished on both sides with lath and plaster or materials providing a 15 minute thermal barrier. Sleeping room doors shall be substantial doors, such as those of 1¾ inch thick, solid-bonded wood core construction or other construction of equal or greater stability and fire integrity. Any vision panels shall be fixed fire window assemblies in accordance with 8.2.3.2.2 or shall be wired glass not exceeding 1296 sq. in. each in area and installed in approved frames. 33.2.3.6.1, 33.2.3.6.2. ❑ *Exception No. 1: In prompt evacuation facilities, all sleeping rooms shall be separated from the escape route by smoke partitions in accordance with 8.2.4. Door closing shall be regulated by 33.2.3.6.4.* ❑ *Exception No. 2: This requirement shall not apply to corridor walls that are smoke partitions in accordance with 8.2.4 and that are protected by automatic sprinklers in accordance with 33.2.3.5 on both sides of the wall and door. In such instances, there shall be no limitation on the type or size of glass panels. Door closing shall be regulated by 33.2.3.6.4.* ❑ *Exception No. 3: Sleeping arrangements that are not located in sleeping rooms shall be permitted for nonresident staff members, provided that the audibility of the alarm in the sleeping area is sufficient to awaken staff that might be sleeping.*				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	❑ *Exception No. 4: In previously approved facilities, where the group achieves an E-score of three or less using the board and care methodology of NFPA 101A. Guide on Alternative Approaches to Life Safety, sleeping rooms shall be separated from escape routes by walls and doors that are smoke resistant.* No louvers or operable transoms or other air passages shall penetrate the wall, except properly installed heating and utility installations other than transfer grilles. Transfer grilles shall be prohibited.				
	2000 NEW The separation walls of sleeping rooms shall be capable of resisting fire for not less than ½ hour, which is considered to be achieved if the partitioning is finished on both sides with lath and plaster or materials providing a 15 minute thermal barrier. Sleeping room doors shall be substantial doors, such as those of 1¾ inch thick, solid-bonded wood core construction or other construction of equal or greater stability and fire integrity. Any vision panels shall be fixed fire window assemblies in accordance with 8.2.3.2.2. or shall be wired glass not exceeding 1296 sq. in. each in area and installed in approved frames. 32.2.3.6.1 and 32.2.3.6.2. ❑ *Exception No. 1: In prompt evacuation capability facilities, all sleeping rooms shall be separated from the escape route by smoke partitions in accordance with 8.2.4. Door closing shall be regulated by 32.2.3.6.4.* ❑ *Exception No. 2: This requirement shall not apply to corridor walls that are smoke partitions in accordance with 8.2.4 and that are protected by automatic sprinklers in accordance with 32.2.3.5 on both sides of the wall and door. In such instances, there shall be no limitation on the type or size of glass panels. Door closing shall be regulated by 32.2.3.6.4.* ❑ *Exception No. 3: Sleeping arrangements that are not located in sleeping rooms shall be permitted for nonresident staff members, provided that the audibility of the alarm in the sleeping area is sufficient to awaken staff that might be sleeping.* No louvers or operable transoms or other air passages shall penetrate the wall, except properly installed heating and utility installations other than transfer grilles. Transfer grilles shall be prohibited.				

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ID PREFIX		MET	NO MET	N/A	REMARKS
K18	Doors shall be provided with latches or other mechanisms suitable for keeping the doors closed. No doors shall be arranged to prevent the occupant from closing the door. 32.2.3.6.3, 32.2.3.6.4, 33.2.3.6.3, 33.2.3.6.4 Doors shall be self-closing or automatic closing in accordance with 7.2.1.8 ❑ *Exception: Door closing devices shall not be required in buildings protected throughout by an approved automatic sprinkler system in accordance with 32.2.3.5.1 and 33.2.3.5.2.*				
	EGRESS				
K41	Every sleeping room and living area shall have access to a primary means of escape located to provide a safe path of travel to the outside. 33.2.2.2.1. Where sleeping rooms or living areas are above or below the level of exit discharge, the primary means of escape shall be an interior stair in accordance with 32.2.2.4 and 33.2.2.4, an exterior stair, a horizontal exit, or a fire escape stair. 32.2.2.2.				
K120	2000 EXISTING In addition to the primary route, each sleeping room shall have a second means of escape that consists of one of the following: (a) It shall be a door, stairway, passage, or hall providing a way of unobstructed travel to the outside of the dwelling at street or ground level that is independent of and remotely located from the primary means of escape. (b) It shall be a passage through an adjacent nonlockable space, independent of and remotely located from the primary means of escape, to approved means of escape. (c) It shall be an outside window or door operable from the inside without the use of tools, keys, or special effort that provides a clear opening of not less than 5.7 sq. ft. The width shall be not less than 20 inches. The height shall be not less than 24 inches. The bottom of the opening shall be not more than 44 inches above the floor. Such means of escape shall be acceptable where one of the following criteria are met:				

ID PREFIX		MET	NO MET	N/A	REMARKS
	(1) The window shall be within 20 ft of grade. (2) The window shall be directly accessible to fire department rescue apparatus as approved by the authority having jurisdiction. (3) The window or door shall open onto an exterior balcony. 33.2.2.3 ❑ *Exception No. 1: If the sleeping room has a door leading directly to the outside of the building with access to grade or to a stairway that meets the requirements of exterior stairs in 33.2.3.1.2, that means of escape shall be considered as meeting all the escape requirements for the sleeping room.* ❑ *Exception No. 2: A second means of escape from each sleeping room shall not be required where the facility is protected throughout by approved automatic sprinkler system in accordance with 33.2.3.5.* ❑ *Exception No. 3: Existing approved means of escape shall be permitted to continue to be used.*				
	2000 NEW In addition to the primary route, each sleeping room in facilities that use Exception No. 1 to 32.2.3.5.1 shall have a second means of escape that consists of one of the following: (d) It shall be a door, stairway, passage, or hall providing a way of unobstructed travel to the outside of the dwelling at street or ground level that is independent of and remotely located from the primary means of escape. (e) It shall be a passage through an adjacent nonlockable space, independent of and remotely located from the primary means of escape, to approved means of escape. (f) It shall be an outside window or door operable from the inside without the use of tools, keys, or special effort that provides a clear opening of not less than 5.7 sq. ft. The width shall be not less than 20 inches. The height shall be not less than 24 inches. The bottom of the opening shall be not more than 44 inches above the floor. Such means of escape shall be acceptable where one of the following criteria are met: (1) The window shall be within 20 ft of grade. (2) The window shall be directly accessible to fire department rescue apparatus as approved by the authority having jurisdiction.				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	(3) The window or door shall open onto an exterior balcony. 33.2.2.3 ❑ *Exception: If the sleeping room has a door leading directly to the outside of the building with access to grade or to a stairway that meets the requirements of exterior stairs in 32.2.3.1.2, that means of escape shall be considered as meeting all the escape requirements for the sleeping room.*				
K20	2000 EXISTING Interior stairs used as a primary means or escape shall be enclosed with ½ hour fire barriers, with all openings equipped with smoke-actuated automatic closing or self-closing doors having a fire protection rating comparable to that required for the enclosure. Stairs shall comply with 7.2.2.5.3. The entire primary means of escape shall be arranged so that it is not necessary for the occupants to pass through a portion of a lower story unless that route is separated from all spaces on that story by construction having not less than a ½ hour fire resistance rating. In buildings of construction other than Type II (000), Type III (200), or Type V (000), the supporting construction shall be protected to afford the required fire resistance rating of the supported wall. 33.2.2.4. ❑ *Exception No. 1: Stairs that connect a story at street level to only one other story shall be permitted to be open to the story that is not at street level.* ❑ *Exception No. 2: Stair enclosures shall not be required in buildings of three or fewer stories that house prompt or slow evacuation capability facilities protected through out by an approved automatic sprinkler system in accordance with 33.2.3.5 that uses quick response or residential sprinklers. This exception shall be permitted only if a primary means of escape from each sleeping area still exists that does not pass through a portion of a lower floor, unless that route is separated from all spaces on that floor by construction having a ½ hour fire resistance rating.* ❑ *Exception No. 3: Stair enclosures shall not be required in buildings of two or fewer stories that house prompt evacuation capability facilities with not more than eight residents and are protected by an approved automatic sprinkler system in accordance with 33.2.3.5 that uses quick-response or residential sprinklers. Exception No. 2 to 33.2.2.3 shall not be used in conjunction with this exception. The exceptions to 33.2.3.4.3 shall not be used in conjunction with this exception.*				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	❑ *Exception No. 4: In buildings of three or fewer stories that house prompt or slow evacuation capability facilities protected by an approved automatic sprinkler system in accordance with 33.2.3.5 stairs shall be permitted to be open at the topmost story only. The entire primary means of escape of which the stairs are a part shall be separated from all portions of lower stories.*				
	2000 NEW 32.2.2.4 Interior stairs shall be enclosed with ½ hour fire barriers, with all openings equipped with smoke-actuated automatic closing or self-closing doors having a fire protection rating comparable to that required for the enclosure. Stairs shall comply with 7.2.2.5.3. The entire primary means of escape shall be arranged so that it is not necessary for the occupants to pass from all spaces on that story by construction having not less than a ½ hour fire resistance rating. In buildings of construction other than Type II (000), Type III (200), or Type V (000), the supporting construction shall be protected to afford the required fire resistance rating of the supported wall. ❑ *Exception No. 1: Stairs that connect a story at street level to only one other story shall be permitted to be open to the story that is not at street level.* ❑ *Exception No. 2: Stair enclosures shall not be required for prompt and slow evacuation capability facilities in buildings of three or fewer stories that are protected with an approved automatic sprinkler system in accordance with 32.2.3.5. This exception shall be permitted only if a primary means of escape from each sleeping area still exists that does not pass through a portion of a lower floor, unless that route is separate from all spaces on that floor by construction having a ½ hour fire resistance rating.* ❑ *Exception No. 3: Stair enclosures shall not be required in buildings of two or fewer stories that house prompt evacuation capability facilities with not more than eight residents. The exception to 32.2.3.4.3.1 shall not be used in conjunction with this exception. Exception No. 1 to 32.2.3.5.1 shall not be used in conjunction with this exception.*				

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ID PREFIX		MET	NO MET	N/A	REMARKS
K21	32.2.3.1.1, 33.2.3.1.1 Vertical openings shall be protected so as not to expose a primary means of escape. Vertical openings shall be considered protected if separated by smoke partitions in accordance with 8.2.4 that prevent the passage of smoke from one story to any primary means of escape on another story. Smoke partitions shall have a fire resistance rating on not less than ½ hour. Any doors or openings to the vertical opening shall be capable of resisting fire for not less than 20 minutes. ❑ *Exception: Stairs shall be permitted to be open where complying with Exception no. 2 or Exception No. 3 to 32.2.2.4, 33.2.2.4.*				
K40	2000 EXISTING 33.2.2.5.1 Doors or paths of travel to a means of escape shall not be less than 28 inches. ❑ *Exception: Bathroom doors shall not be less than 24 inches.*				
	2000 NEW 32.2.2.5.1 Doors or paths of travel to means of escape shall be not less than 32 inches. ❑ *Exception No. 1: Bathroom doors shall be not less than 24 inches.* ❑ *Exception No. 2: In conversions (see 32.1.1.3), 28 inch doors shall be permitted to continue in use.*				
K121	Winders complying with 7.2.2.2.4 shall be permitted 32.2.2.6.2., 33.2.2.6.2				
K122	Every closet door latch shall be readily opened from the inside in case of an emergency. 32.2.2.5, 33.2.2.5.3				
K123	Every bathroom door shall be designed to allow opening from the outside during an emergency when locked. 32.2.2.5.4, 33.2.2.5.4				
K43	No door in any means of escape shall be locked against egress when the building is occupied. ❑ *Exception: Delayed egress locks complying with 7.2.1.6.1 shall be permitted on exterior doors. 32.2.2.5.5, 33.2.2.5.5.* **If the level of evacuation difficulty is PROMPT, stop here.**				

ID PREFIX		MET	NO MET	N/A	REMARKS
	SMALL FACILITY – SLOW EVACUATION BUILDING CONSTRUCTION				
K11	2000 EXISTING 33.2.1.3.2 The facility shall be housed in a building where the interior is fully sheathed with lath and plaster or other material providing a 15 minute thermal barrier, including all portions of bearing walls, bearing partitions, floor construction, and roofs. All columns, beams, girders, and trusses shall be similarly encased or otherwise shall provide not less than a ½ hour fire resistance rating. 33.2.1.3.2. ❑ *Exception No. 1: Exposed steel or wood columns, girders, and beams (but not joists) located in the basement.* ❑ *Exception No. 2: Buildings of Type I, Type II (2,2,2), Type II (1,1,1), Type III (2,1,1), Type IV, Type V (1,1,1) construction (See 8.2.1)* ❑ *Exception No. 3: Areas protected by approved automatic sprinkler systems in accordance with 33.2.3.5.* ❑ *Exception No. 4: Unfinished, unused, and essentially inaccessible loft, attic, or crawl space.* ❑ *Exception No. 5: Where the facility achieves an E-score of three or less using the board and care occupancies evacuation capability determination methodology of NFPA 101A, Guide on Alternative Approaches to Life Safety.* *Note: No requirement for New - Chapter 32*				
	INTERIOR FINISH				
K16	Interior wall and ceiling finish materials in accordance with 10.2 and 10.2.3 shall be Class A or Class B. 32.2.3.3.2, 33.2.3.3				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	AUTOMATIC SPRINKLER SYSTEM				
K145	2000 NEW 32.2.3.5.1 All facilities shall be protected throughout by an approved automatic sprinkler system in accordance with 32.2.3.5.2. Quick response or residential sprinklers shall be provided. ❑ *Exception No. 1: In conversions, sprinklers shall not be required in small board and care homes with a rating of prompt evacuation capability and serving eight or fewer residents.* ❑ *Exception No. 2: Standard response sprinklers shall be permitted for use in hazardous areas in accordance with 32.2.3.2.*				
K56	2000 EXISTING 33.2.3.5.2 Where an automatic sprinkler system is installed, for either total or partial building coverage, the system shall be in accordance with Section 9.7 and shall activate the fire alarm system in accordance with 33.2.3.4.1. The adequacy of the water supply shall be documented to the authority having jurisdiction. ❑ *Exception No. 1: Not Applicable* ❑ *Exception No. 2: In slow and impractical evacuation capability facilities, an automatic sprinkler system in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in one-and-two-Family Dwellings and Manufactured Homes, with a 30 minute water supply, shall be permitted. All habitable areas and closets shall be sprinklered. Automatic Sprinklers shall not be required in bathrooms not exceeding 55 ft² (5.1 m²), provided that such spaces are finished with bath and plaster or materials provided a 15 minute thermal barrier.* ❑ *Exception No. 3: In prompt and slow evacuation capability facilities where an automatic sprinkler system is in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, automatic sprinklers shall not be required in closets not exceeding 24 sq. ft. and in bathrooms not exceeding 55 sq. ft., provided that such spaces are finished with lath and plaster or material providing a 15 minute thermal barrier.* ❑ *Exception No. 4: In prompt and slow evacuation capability facilities up to and including four stories in height, systems in accordance with NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be permitted.* ❑ *Exception No. 5: Not Applicable*				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	❑ *Exception No. 6: Initiation of the fire alarm system shall not be required for existing installations in accordance with 33.2.3.5.5.*				
	2000 NEW 32.2.3.5.2 Where an automatic sprinkler system is installed, for either total or partial building coverage, the system shall be in accordance with Section 9.7 and shall initiate the fire alarm system in accordance with 32.2.3.4.1. The adequacy of the water supply shall be documented to the authority having jurisdiction. ❑ *Exception No. 2: In slow and impractical evacuation capability facilities, an automatic sprinkler system in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in one-and-two Family Dwellings and Manufactured Homes, with a 30 minute water supply, shall be permitted. All habitable areas and closets shall be sprinklered. Facilities with more than eight residents shall be treated as two family dwellings with regard to water supply.* ❑ *Exception No. 3: In prompt and slow evacuation capability facilities where an automatic sprinkler system is in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, automatic sprinklers shall not be required in closets not exceeding 24 sq. ft. and in bathrooms not exceeding 55 sq. ft., provided that such spaces are finished with lath and plaster or material providing a 15 minute thermal barrier.* ❑ *Exception No. 4: In prompt and slow evacuation capability facilities up to and including four stories in height, systems in accordance with NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be permitted.* ❑ *Exception No. 5: Not Applicable* ❑ *Exception No. 6: Initiation of the fire alarm system shall not be required for existing installations in accordance with 32.2.3.5.5.*				
	EGRESS				
K32	2000 EXISTING (Only) 33.2.2.2.2 In slow and impractical evacuation capability facilities, the primary means of escape for each sleeping room shall not be exposed to living areas and kitchens. ❑ *Exception: Buildings equipped with quick-response or residential sprinklers throughout. Standard response sprinklers shall be permitted for use in hazardous areas in accordance with 33.2.3.2.* **If the level or evacuation capability is SLOW, stop here.**				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	SMALL FACILITY IMPRACTICAL EVACUATION CAPABILITY				
	BUILDING CONSTRUCTION				
K12	2000 EXISTING Buildings shall be of any construction type in accordance with 8.2.1 other than Type II (000), Type III (200), or Type V (000) construction. 33.2.1.3.3. ❑ *Exception: Buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 33.2.3.5 shall be permitted to be of any type of construction.*				
	AUTOMATIC SPRINKLER SYSTEM				
K56	2000 EXISTING Where an automatic sprinkler system is installed, for either total or partial building coverage, the system shall be in accordance with Section 9.7 and shall activate the fire alarm system in accordance with 33.2.3.4.1. The adequacy of the water supply shall be documented to the authority having jurisdiction. 33.2.3.5.2. ❑ *Exception No. 1: Not Applicable.* ❑ *Exception No. 2: In slow and impractical evacuation capability facilities, an automatic sprinkler system in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes, with a 30 minute water supply, shall be permitted. All habitable areas and closets shall be sprinklered. Automatic sprinklers shall not be required in bathrooms not exceeding 55 sq. ft., provided that such spaces are finished with lath and plaster or materials providing a 15 minute thermal barrier.* ❑ *Exception No. 3: Not Applicable.* ❑ *Exception No. 4: Not Applicable.* ❑ *Exception No. 5: In impractical evacuation capability facilities up to and including four stories in height, systems in accordance with NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be permitted. All habitable areas and closets shall be sprinklered. Automatic sprinklers shall not be required in bathrooms not exceeding 55 sq. ft., provided that such spaces are finished with lath and plaster or materials providing a 15 minute thermal barrier.* ❑ *Exception No. 6: Initiation of the fire alarm system shall not be required for existing installations in accordance with 33.2.3.5.5.*				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	2000 NEW Where an automatic sprinkler system is installed, for either total or partial building coverage, the system shall be in accordance with Section 9.7 and shall initiate the fire alarm system in accordance with 32.2.3.4.1. The adequacy of the water supply shall be documented to the authority having jurisdiction. 32.2.3.5.2. ❑ *Exception No. 1: Not Applicable.* ❑ *Exception No. 2: In slow and impractical evacuation capability facilities, an automatic sprinkler system in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes, with a 30 minute water supply, shall be permitted. All habitable areas and closets shall be sprinklered. Facilities with more than eight residents shall be treated as two family dwellings with regard to water supply.* ❑ *Exception No. 3: Not Applicable.* ❑ *Exception No. 4: Not Applicable.* ❑ *Exception No. 5: In impractical evacuation capability facilities up to and including four stores in height, systems in accordance with NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stores in Height, shall be permitted. All habitable areas and closets shall be sprinklered.* ❑ *Exception No. 6: Initiation of the fire alarm system shall not be required for existing installations in accordance with 32.2.3.5.5.*				
	VERTICAL OPENINGS				
K20	Vertical openings shall be protected so as not to expose a primary means of escape. Vertical openings shall be considered protected if separated by smoke partitions in accordance with 8.2.4 that prevent the passage of smoke from one story to any primary means of escape on another story. Smoke partitions shall have a fire resistance rating of not less than a ½ hour. Any doors or openings to the vertical opening shall be capable of resisting fire for not less than 20 minutes. 32.2.3.1.1, 33.2.3.1.1 ❑ *Exception: Stairs shall be permitted to be open where complying with Exception No. 2 or Exception No. 3 to 32.2.2.4 and 33.2.2.4.* **Note: Make sure you have completed PROMPT and SLOW as well as this section.**				

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ID PREFIX		MET	NO MET	N/A	REMARKS
	OPERATING FEATURES FOR ALL FACILITIES				
K46	Utilities shall comply with Section 9.1. 32.2.5.1, 33.2.5.1				
K147	The administration of every resident board and care facility shall have in effect and available to all supervisory personnel written copies of a plan for protecting all persons in the event of fire, for keeping persons in place, for evacuating persons to areas of refuge, and for evacuating person from the building when necessary. The plan shall include special staff response, including fire protection procedures needed to ensure the safety of any resident, and shall be amended or revised whenever any resident with unusual needs is admitted to the home. All employees shall be periodically instructed and kept informed with respect to their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff not less than every 2 months. A copy of the plan shall be readily available at all times within the facility. 32.7.1, 33.7.1				
K148	Smoking regulations shall be adopted by the administration of board and care occupancies. 32.7.4.1, 33.7.4.1				
K149	Where smoking is permitted, noncombustible safety type ashtrays or receptacles shall be provided in convenient locations. 32.7.4.2, 33.7.4.2				
K150	New draperies, curtains, and other similar loosely hanging furnishings and decorations in board and care facilities shall be in accordance with provisions of 10.3.1. 32.7.5.1, 33.7.5.1				
K151	New upholstered furniture within board and care facilities shall be tested in accordance with the provisions of 10.3.2(1) and 10.3.3. ❑ *Exception: Upholstered furniture belonging to the resident in sleeping rooms, provided that a smoke alarm is installed in such rooms. Battery-powered single-station smoke alarms shall be permitted. 32.7.5.2, 33.7.5.2*				
K152	CFR-42-483.470(i) Evacuation Drills (1) The facility must hold evacuation drills at least quarterly for each shift of personnel and under varied conditions to – ❑ *(i) Ensure that all personnel on all shifts are trained to per form assigned tasks:* ❑ *(ii) Ensure that all personnel on all shifts are familiar with the use of the facility's emergency and disaster plans and procedures.*				

ID PREFIX		MET	NOT MET	N/A	REMARKS
	(2) The facility must – ❑ *(i) Actually evacuate clients during at least one drill each year on each shift;* ❑ *(ii) Make special provisions for the evacuation of clients with physical disabilities;* ❑ *(iii) File a report and evaluation on each drill;* ❑ *(iv) Investigate all problems with evacuation drills, including accidents and take corrective action; and* ❑ *(v) During fire drills, clients may be evacuated to a safe area in facilities certified under the Health Care Occupancies Chapter of the Life Safety Code.* (3) Facilities must meet the requirements of paragraphs (i) (1) and (2) of this section for any live-in and relief staff that they utilize.				

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FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER K1	FACILITY NAME	SURVEY DATE * K4

K6 DATE OF PLAN APPROVAL

K3 MULTIPLE CONSTRUCTION
TOTAL NUMBER OF BUILDINGS _____
NUMBER OF THIS BUILDING _____

A BUILDING
B WING
C FLOOR
D APARTMENT UNIT

LSC FORM INDICATOR

Health Care Form		
12	2786R	2000 EXISTING
13	2786R	2000 NEW

ASC Form		
14	2786U	2000 EXISTING
15	2786U	2000 NEW

ICF/MR Form		
16	2786V, W, X	2000 EXISTING
17	2786V, W, X	2000 NEW

* K7 ☐ SELECT NUMBER OF FORM USED FROM ABOVE

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)
K8 ☐ 1 PROMPT 2 SLOW 3 IMPRACTICAL

LARGE
K8: ☐ 4 PROMPT 5 SLOW 6 IMPRACTICAL

APARTMENT HOUSE
K8: ☐ 7 PROMPT 8 SLOW 9 IMPRACTICAL

(Check if K29 or K56 are marked as not applicable in the 2786 M, R, T, U, V, W, X and Y.)

K29 ☐ K56: ☐

ENTER E – SCORE HERE

K5: ☐ e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON *(Check all that apply)*

A1. ☐ (COMP. WITH ALL PROVISIONS)
A2. ☐ (ACCEPTABLE POC)
A3. ☐ (WAIVERS)
A4. ☐ (FSES)
A5. ☐ (PERFORMANCE BASED DESIGN)

FACILITY DOES NOT MEET LSC

B. ☐

K0180
A. ☐ FULLY SPRINKLERED (All required areas are sprinklered)
B. ☐ PARTIALLY SPRINKLERED (Not all required areas are sprinklered)
C. ☐ NONE (No sprinkler system)

* MANDATORY

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

2000 CODE ICFs/MR

Form Approved
OMB No. 0938-0242

FIRE SAFETY SURVEY REPORT - 2000 LIFE SAFETY CODE
Intermediate Care Facilities for the Mentally Retarded
LARGE

1. (A) PROVIDER NO. K1

1. (B) MEDICAID I.D. NO. K2

PART I — Figure 6.8 — A Procedure for Determining Evacuation Capability
PART II — Chapters 32 & 33 — Residential Board & Care Occupancies — Requirements
PART III — Figure 7.5 — Fire Safety Evaluation System for Board & Care (Optional) — CMS-2786T

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY

2. (A) MULTIPLE CONSTRUCTION
A. BUILDING _____
B. WING _____
C. FLOOR _____
K3

2. (B) ADDRESS OF FACILITY (STREET, CITY, STATE, ZIP CODE

A. ☐ Fully Sprinklered (All required areas are sprinklered)
B. ☐ Partially Sprinklered (Not all required areas are sprinklered)
C. ☐ None (No sprinkler system)
K3190

4. DATE OF SURVEY K4

DATE OF PLAN APPROVAL K5

SURVEY UNDER:
9. ☐ 2000 ☐ Chapter 32 New ☐ Chapter 33 Existing
K7

E–Score
K5

E–Score	Level of Evacuation Difficulty
≤ 1.5	Prompt
> 1.5 ≤ 5.0	Slow
> 5.0	Impractical

5. SURVEY FOR CERTIFICATION OF: SMALL FACILITY
LEVEL OF EVACUATION DIFFICULTY (check one)
☐ 4. Prompt ☐ 5. Slow ☐ 6. Impractical
K8

6. BED COMPOSITION
A. TOTAL NO. OF BEDS IN THE FACILITY

E. NUMBER OF BEDS CERTIFIED FOR MEDICAID

7. ☐ A. THE FACILITY MEETS, BASED UPON (CHECK ALL APPROPRIATE BOXES)
1. ☐ COMPLIANCE WITH ALL PROVISIONS 2. ☐ ACCEPTANCE OF A PLAN OF CORRECTION 4. ☐ FSES 5. ☐ PERFORMANCE BASED DESIGN
☐ B. THE FACILITY DOES NOT MEET THE STANDARDS
K9

SURVEYOR (SIGNATURE)	TITLE	OFFICE	DATE
SURVEYOR ID K10			
FIRE AUTHORITY OFFICIAL (SIGNATURE)	TITLE	OFFICE	DATE

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-0242. The time required to complete this information collection is estimated to average 5 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: CMS, Attn: PRA Reports Clearance Officer, 7500 Security Boulevard, Baltimore, Maryland 21244-1850.

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Page 1

INSTRUCTIONS FOR COMPLETING THE FORM (CMS-2786K)
LARGE FACILITIES — 17 BEDS OR MORE

1. **Determine the Level of Evacuation Capability** of the facility.
2. **Transfer the E-Score** obtained in Fig. 6.8 of page 1 of this form.
3. **Complete either LSC Chapter 32 for (new) or LSC Chapter 33 for (existing)** requirements of this form, or Fig. 7.5 — Rating the Building.

   A. **If completing Chapter 32 or 33** Requirements:

      1. PROMPT OR SLOW - Complete sections for PROMPT and SLOW
      2. Impractical - Complete a CMS-2786R (Health Care) or FSES/Health Care (Optional) — see page 13.

   B. **If completing the FSES/BC — Chapter 32 or 33** — Rating the Building

      1. You **MUST** also complete the Chapter 32 or 33 requirements. An FSES building evacuation cannot be done without completing the usual survey form pages for Chapter 32 or 33
      2. You may use the FSES/Health Care to evaluate the building (Form CMS-2786T Chapter 4 & Fig. 4.7), but if you choose to do so, you must use the LSC Survey Report for Health Care (CMS-2786R)

*Figures for FSES/HC are taken from NFPA 101 A 2001 Edition

Worksheet for Calculating Evacuation Difficulty Score (E-Score)

F-2

BEFORE FILLING OUT THIS WORKSHEET:

- Please read the Instruction Manual.
- Make sure you have the completed "Worksheets for Rating Residents" (figure 6.8) for each resident.
- Determine whether the requirements for using the Evacuation Difficulty Index have been satisfied by checking the one box to the left of each question below that shows whether the answer to the question is "YES" or "NO."

❑ YES ❑ NO 1. Has a protection plan been developed and written and have all staff members counted in the calculation of E-Scores been trained in its implementation?

❑ YES ❑ NO 2. Is the total available staff at any given time able to handle the individual evacuation needs of each resident who may be in the residence?

❑ YES ❑ NO 3. Can every staff member counted in the calculation of E-Scores meaningfully participate in the evacuation of every resident?

❑ YES ❑ NO 4. Are all staff members counted in the calculation of E-Scores required to remain in the residence with only the exceptions listed in the Instruction Manual?

❑ YES ❑ NO 5. Were at least twelve fire drills conducted during the year?

This worksheet is filled out for the staff "Shift"

From _____ To _____

(You must fill out this worksheet for the time of day, week, etc. when the ratings for the combination of staff and residents yields the highest E-Score. This period of time will usually be late at night. When it is not obvious which time period has the highest E-Score, complete a separate worksheet for all candidate time periods and use the one having the highest E-Score.)

EVALUATOR'S NAME_____ DATE _____
(if other than Fire Authority Surveyor)

Worksheet 6.8.1 Cover Sheet

Resident's name _____

Evaluator _____

Facility _____

Date _____

Zone _____

Write any explanatory remarks here:

Worksheet 6.8.2 Rating the Resident on the Risk Factors

Rate the resident on each of the factors below by checking the one circle for each risk factor that best describes the resident. For the first six factors, write the scores for the circles checked in the appropriate score boxes in the far right column. For "Response to Fire Drills," write the three checked scores in the large circles. Write the sum of the three scores in the large box on the right.

					Score Boxes
I. Risk of Resistance (Check only one)	Minimal Risk ○ score = 0	Risk of Mild Resistance ○ score = 6	Risk of Strong Resistance ○ score = 20		
II. Impaired Mobility (Check only one)	Self-Starting ○ score = 0	Slow ○ score = 3	Needs Limited Assistance ○ score = 6	Needs Full Assistance or Very Slow ○ score = 20	
III. Impaired Consciousness (Check only one)	No Significant Risk ○ score = 0	Partially Impaired ○ score = 6	Totally Impaired ○ score = 20		
IV. Need for Extra Help (Check only one)	Needs at Most One Staff ○ score = 0	Needs Limited Assistance from 2 Staff ○ score = 30	Needs Full Assistance from 2 Staff ○ score = 40		
V. Response to Instructions (Check only one)	Follows Instructions ○ score = 1	Requires Supervision ○ score = 3	Requires Considerable Attention/Might Not Respond ○ score = 10		
VI. Waking Response to Alarm (Check only one)	Response Probable ○ score = 0	Response Not Probable ○ score = 6			

VII. Response to Fire Drills	Initiates and Completes Evacuation Promptly	Yes ○ score = 0	No ○ score = 8	○ +	
(Without guidance or advice from staff)	Chooses and Completes Back-up Strategy	Yes ○ score = 0	No ○ score = 4	○ +	
	Remains at Designated Location	Yes ○ score = 0	No ○ score = 6	○	Sum of These Three Scores

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Worksheet 6.8.3 Determining the Resident's Overall Need for Assistance

Compare the numbers in the seven score boxes filled in. Take the highest score from the score boxes (Worksheet 6.8.2.) and write it in the box at the right.

Notes:

Evacuation Assistance Score

Worksheet 6.8.4 Resident Scores

Resident's Name	Evac. Assist. Score	Resident's Name	Evac. Assist. Score
Evacuation Assistance Score Total		Evacuation Assistance Score Total	

Worksheet 6.8.5 Cover Sheet

Staff Shift Score

Facility _____ Zone _____

Evaluator _____ Date _____

Staff Shift: From _____ To _____

Worksheet 6.8.6 Staff Response and Training

	YES	NO
A protection plan has been promulgated and all staff members considered in this rating have been trained in its implementation. (*See* 6.5.2.1)		
The total available staff at any given time is able to handle the individual evacuation needs of each resident who is in the facility. (*See* 6.5.2.2 and *Exception*)		
Every staff member considered in this rating can meaningfully participate in the evacuation of each resident. (*See* 6.5.2.3)		
All staff members considered in this rating are required to be in the facility when on duty, except as permitted. (*See* 6.5.2.4 and *Exceptions*)		
At least 12 fire drills were conducted during the previous year. (*See* 6.5.2.5 and *Exception*)		

All items must score "Yes" before proceeding.

Worksheet 6.8.7 Promptness of Response Scores

Staff Availability	Alarm Effectiveness	
	Assured	Not Assured
Standby or asleep	16	2
Immediately available	20	2
Immediately available and close by	20	10

Worksheet 6.8.8 Staff Scores

Resident's Name	Promptness of Response Score	Resident's Name	Promptness of Response Score
Staff Shift Score Total		Staff Shift Score Total	

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Worksheet 6.8.9 Rating the Facility

	Vertical Distance from Sleeping Rooms to Exits		
	All SR on Floors with Direct Exit	Any SR One Floor from Exit	Any SR Two or More Floors from Exit
Small Facility	◯ Score 0.8	◯ Score 1.0	◯ Score 1.2
Large Facility or Apartment	◯ Score 1.0		

NOTE: Small facilities have 16 or fewer residents. See 6.6.6 for apartments.

Worksheet 6.8.10 Calculation of Evacuation Capability Score

Total Resident Evacuation Assistance Score (Worksheet 6.8.4) [ ] **X** Vertical Distance from Sleeping Room to Exit (Worksheet 6.8.9) [ ]

[ ] **=** Evacuation Capability Score [ ]

(Go to Worksheet 6.8.11)

Staff Shift Score (Worksheet 6.8.8) [ ]

Worksheet 6.8.11 Evacuation Capability Score

Evacuation Capability Score	Level of Evacuation Capability	Evacuation Capability for this Facility or Zone
≤1.5	Prompt	
>1. to ≤5.0	Slow	
>5.0	Impractical	

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ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	BUILDING CONSTRUCTION (NEW & EXISTING)					
K12	Minimum Construction Requirements: Based on highest story normally used by residents One and Two Story ☐ Any construction type of one-hour or greater fire rating, or ☐ Type IV (2HH), or ☐ Fully sheathed, or ☐ With automatic sprinkler system throughout, in accordance with 32.3.3.5, 33.3.3.5. ☐ Exception: One story any construction type and no more than 30 residents capable of prompt evacuation.					
	Three to Six Stories ☐ Type I, II or III construction of one-hour or greater fire resistance rating, or ☐ Type IV construction with automatic sprinkler system throughout in accordance with 32.3.3.5 or 33.3.3.5. ☐ Exception: Three or four story facilities of Type V (000), sheathed and with automatic sprinkler system throughout, in accordance with 32.3.3.5, 33.3.3.5.					
	More than Six Stories ☐ Type I or II (222) construction, or ☐ Type II (111) construction, or ☐ Type III (211) construction, or ☐ Type IV (2HH) with automatic sprinkler system throughout in accordance with 32.3.3.5, 33.3.3.5. 32.3.1.3, 33.1.3.1					
	OCCUPANT LOAD ☐ Not less than two exits shall be accessible from every floor and in at least two different directions. The occupant load, in number of persons for who means of egress and other provisions are required, shall be determined on the basis of the occupant load factors or Table 7.3.1.2 that are characteristic of the use of the space or shall be determined as the maximum probable population of the space under consideration, whichever is greater. 33.3.1.4, 32.3.1.4					

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ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	HAZARDOUS AREAS					
K124	Any room containing high-pressure boilers, refrigerating machinery, transformers, or other service equipment subject to possible explosion shall not be located under or adjacent to exits. All such rooms shall be effectively separated from other parts of the building as specified in section 8.4. 32.3.3.2.1, 33.3.2.1					
K29	All hazardous areas shall be separated with construction of a minimum of one-hour fire resistance or automatic extinguishment system with openings protected with self-closing fire doors. ☐ *Exception: Existing buildings may have hazardous areas separated from other parts of the building by a smoke partition in accordance with section 8.2.4.* Hazardous areas shall include but not be limited to the following: boiler or heating rooms, laundries, repair shop, spaces storing combustibles in quantities deemed hazardous by the authority having jurisdiction. 32.3.3.2.2, 33.3.3.2.2					
K211	2000 EXISTING Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 19.3.2.7, CFR 483.470					

ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
K211	2000 NEW Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 18.3.2.7, CFR 483.470					
	DETECTION ALARM & COMMUNICATIONS SYSTEMS					
K51	A manual fire alarm system with approved component devices or equipment, shall be installed in accordance with section 9.6. ☐ *Exception: Where each bedroom has an exterior exit access in accordance with 7.5.3 and the building is not greater than three stories.* INITIATION The required fire alarm system shall be initiated by the following means: (1) Manual means in accordance with 9.6.2 ☐ *Exception: A manual means, as specified in 9.6.2, in excess of the manual fire alarm box at a constantly attended location per 33.3.3.4.2(2) below shall not be required where there are other effective means (such as a complete automatic sprinkler or automatic detection system) for notification of fire as required.* (2) A manual fire alarm box located at a convenient central control point under continuous supervision of responsible employees. (3) The automatic sprinkler system.					

ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	☐ *Exception: Automatic sprinkler systems that are not required by another section of this Code shall not be required to initiate the fire alarm system.* (4) Any required detection system. ☐ *Exception: Sleeping room smoke alarms shall not be required to initiate the building fire alarm system.* 32.3.3.4, 33.3.3.4					
	ANNUNCIATOR PANEL ☐ An annunciator panel connected with the fire alarm system shall be provided. The location of the annunciator shall be approved by the authority having jurisdiction. ☐ *Exception: Buildings not more than two stories in height and with not more than 50 sleeping rooms.* 32.3.3.4.3					
	OCCUPANT NOTIFICATION 2000 EXISTING ☐ Occupant notification shall be provided automatically, without delay, by internal audible alarm in accordance with 9.6.3. 33.3.3.4.4					
	2000 NEW ☐ Occupant notification shall be provided automatically, without delay, in accordance with 9.6.3. 32.3.3.4.4					
	FIRE DEPARTMENT NOTIFICATION ☐ In case of a fire, provisions shall be made for the immediate notification of the public fire department by either telephone or other means. Where there is no public fire department, this notification shall be made to the private fire brigade. 32.3.3.4.6, 33.3.3.4.6					
K155	Where a required fire alarm system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the fire alarm system has been returned to service. 9.6.1.8					

ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	SMOKE DETECTION AND ALARM					
K109	SMOKE DETECTION 2000 EXISTING Each sleeping room shall be provided with an approved smoke alarm in accordance with 9.6.2.10 that is powered from the building electrical system. ☐ *Exception No. 1: Existing battery-powered smoke alarms, rather than building electrical service-powered smoke alarms, shall be accepted where, in the opinion of the authority having jurisdiction, the facility has demonstrated that testing, maintenance, and battery replacement programs ensure the reliability of power to the smoke alarms.* ☐ *Exception No. 2: Facilities having an existing corridor smoke detection system in accordance with Section 9.6 that is connected to the building fire alarm system.* 33.3.3.4.7					
	2000 NEW Each sleeping room shall be provided with an approved smoke alarm in accordance with 9.6.2.10 that is powered from the building electrical system. 32.3.3.4.7 ☐ All living areas as defined in 3.3.119 and corridors shall be provided with smoke detectors in accordance NFPA 72, *National Fire Alarm Code*, that are arranged to initiate an alarm that is audible in all sleeping areas. ☐ *Exception No. 1: Detectors shall not be required in living areas and kitchens in facilities protected throughout by an approved automatic sprinkler system installed in accordance with 33.3.3.5.* ☐ *Exception No. 2: Unenclosed corridors, passageways, balconies, colonnades, or other arrangements with one or more sides along the long dimension fully or extensively open to the exterior at all times.* 32.3.3.4.8, 33.3.3.4.8					

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ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	AUTOMATIC SPRINKLERS					
K56	2000 EXISTING Where an automatic sprinkler system is installed for total or partial building coverage, the system shall be in accordance with Section 9.7. ☐ *Exception No. 1: In buildings not more than four stories in height, a sprinkler system complying with NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be permitted.* ☐ *Exception No. 2: Automatic sprinklers shall not be required in small clothes closets where the smallest dimension does not exceed 3 ft (0.9m), the area does not exceed 24 ft² (2.2m²), and the walls and ceilings are finished with noncombustible or limited-combustible material.* ☐ *Exception No. 3: Initiation of the fire alarm system shall not be required for existing installations in accordance with 33.3.3.5.4.* Automatic sprinkler systems shall be supervised in accordance with Section 9.7. Waterflow alarms shall not be required to be transmitted off-site. Sprinkler piping serving not more than six sprinklers for any isolated hazardous area in accordance with 9.7.1.2 shall be permitted. In new installations where more than two sprinklers are installed in a single area, waterflow detection shall be provided to initiate the fire alarm system required by 33.3.3.4.1. 33.3.3.5.1, 33.3.3.5.2, 33.3.3.5.3, 33.3.3.5.4					
	2000 NEW All buildings shall be protected throughout by an approved automatic sprinkler system in accordance with Section 9.7. Quick-response or residential sprinklers shall be provided throughout. ☐ *Exception No. 1: In buildings not more than four stories in height, a sprinkler system complying with NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be permitted*					

ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	☐ *Exception No. 2: Automatic sprinklers shall not be required in small clothes closets where the smallest dimension does not exceed 24 ft (2.2m), and the walls and ceilings are finished with noncombustible or limited-combustible materials.* ☐ *Exception No. 3: Standard response sprinklers shall be permitted for use in hazardous areas in accordance with 32.3.3.2.* Automatic sprinkler systems shall be supervised in accordance with Section 9.7. 32.3.3.5.1, 32.3.3.5.3					
K154	Where a required automatic sprinkler system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch system be provided for all parties left unprotected by the shutdown until the sprinkler system has been returned to service. 9.7.6.1					
	A. Date sprinkler system last checked and necessary maintenance provided. _____					
	B. Show who provided the service._____					
	C. Note the source of the water supply for the automatic sprinkler system. _____					
	(Provide, in REMARKS, information on coverage for any non-required or partial automatic sprinkler system.)					
	PORTABLE FIRE EXTINGUISHERS					
K64	Portable fire extinguishers shall be provided near hazardous areas in accordance with 9.7.4.1. 33.3.3.5.5, 32.3.3.5.5					
	SEPARATION OF SLEEPING ROOMS FROM EXIT ACCESS					
K17	2000 EXISTING Access shall be provided from every resident use area to not less than one means of egress that is separated from all other rooms or spaces by walls complying with 33.3.3.6.3 through 33.3.3.6.6.					

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ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	☐ *Exception No. 1: Rooms or spaces, other than sleeping rooms, protected throughout by an approved automatic sprinkler system in accordance with 33.3.3.5.*					
	☐ *Exception No. 2: Prompt evacuation capability facilities in buildings not over two stories in height where not less than one required means of egress from each sleeping room provides a path of travel to the outside without traversing any corridor or other spaces exposed to unprotected vertical openings, living areas, and kitchens.*					
	☐ *Exception No. 3: Rooms or spaces, other than sleeping rooms, provided with a smoke detection and alarm system connected to activate the building evacuation alarm. Furnishings, finishes, and furniture, in combination with all other combustibles within the spaces, shall be of minimum quantity and arranged so that a fully developed fire is unlikely to occur.*					
	Sleeping rooms shall be separated from corridors, living areas, and kitchens by walls complying with 33.3.3.6.3 through 33.3.3.6.6.					
	Walls required by 33.3.3.6.1 or 33.3.3.6.2 shall have a fire resistance rating of not less than ½ hour.					
	☐ *Exception No. 1: In buildings protected throughout by an approved automatic sprinkler system in accordance with 33.3.35, walls shall be smoke partitions in accordance with 8.2.4. The provisions of 8.2.4.3.5 shall not apply.*					
	☐ *Exception No. 2: In buildings not more than two stories in height that are classified as prompt evacuation capability and that house not more than 30 residents, walls shall be smoke partitions in accordance with 8.2.4. The provisions of 8.2.4.3.5 shall not apply.*					
	Doors in walls required by 33.3.3.6.1 or 33.3.3.6.2 shall have a fire protection rating of not less than 20 minutes.					
	☐ *Exception No. 1: Solid-bonded wood core doors of not less than 1¾ in. (4.4cm) thickness shall be permitted to continue to be used.*					
	☐ *Exception No. 2: In buildings protected throughout by an approved automatic sprinkler system in accordance with 33.3.3.5, doors that are nonrated shall be permitted to continue to be used.*					

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ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	☐ *Exception No. 3: Where automatic sprinkler protection is provided in the corridor with 31.3.5.2 through 31.3.5.4, doors shall not be required to have a fire protection rating but shall be in accordance with 8.2.4.3. The provisions of 8.2.4.3.5 shall not apply. Doors shall be equipped with latches for keeping the doors tightly closed.* Walls and doors required by 33.3.3.6.1 and 33.3.3.6.2 shall be constructed as smoke partitions in accordance with 8.2.4. The provisions of 8.2.4.3.5 shall not apply. No louvers, transfer grilles, operable transoms, or other air passages shall penetrate such walls or doors, except properly installed heating and utility installations. Doors in walls required by 33.3.3.6.1 and 33.3.3.6.2 shall be self-closing or automatic-closing in accordance with 7.2.1.8. Doors in walls separating sleeping rooms from corridors shall be automatic-closing in accordance with 7.2.1.8. ☐ *Exception No. 1: Doors to sleeping rooms that have occupant-control locks such that access is normally restricted to the occupants or staff personnel shall be permitted to be self-closing.* ☐ *Exception No. 2: In buildings protected throughout by an approved automatic sprinkler system installed in accordance with 33.3.3.5, doors, other than doors to hazardous areas, vertical openings, and exit enclosures, shall not be required to be self-closing or automatic-closing.* 33.3.3.6.6					
	2000 NEW Access shall be provided from every resident use area to not less than one means of egress that is separated from all sleeping rooms by walls complying with 32.3.3.6.3 through 32.3.3.6.6. Sleeping rooms shall be separated from corridors, living areas, and kitchens by walls complying with 32.3.3.6.3 through 32.3.3.6.6. Walls required by 32.3.3.6.1 or 32.3.3.6.2 shall have a fire resistance rating of not less than ½ hour. ☐ *Exception: In conversions (see 32.1.1.3), no fire resistance rating shall be required, but the wall shall be a smoke partition in accordance with 8.2.4. The provisions of 8.2.4.3.5 shall not apply.*					

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ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	Doors in walls required by 32.3.3.6.1 or 32.3.3.6.2 shall have a fire protection rating of not less than 20 minutes. ☐ *Exception: Doors in renovations and conversions (see 32.1.1.3) that are nonrated doors that resist the passage of smoke shall be permitted to continue to be used.* Doors to hazardous areas, vertical openings, exits, and exit passageways shall be self-closing or automatic-closing. 32.3.3.6.6					
K18	Doors in walls separating sleeping rooms from corridors shall have a fire protection rating of not less than 20 minutes. Doors shall be equipped with latches for keeping the doors tightly closed. ☐ *Exception No. 1: Existing 1¾ inch solid bonded wood core doors shall be permitted.* ☐ *Exception No. 2: Where walls are only required to resist the passage of smoke, doors without fire rating and which resist the passage of smoke are permitted.* ☐ *Exception No. 3: Where automatic sprinkler protection is provided in the corridor in accordance with 31.3.5.3 through 31.3.5.4, doors shall not be required to have a fire protection rating but shall be in accordance with 8.2.4.3. The provisions of 8.2.4.3.5 shall not apply. Doors shall be equipped with latches for keeping the doors tightly closed.* 32.3.3.6.4, 33.3.3.6.4					
	Walls and doors required by 32.3.3.6.1 and 32.3.3.6.2. shall be constructed as smoke partitions in accordance with 8.2.4. The provisions of 8.2.4.3.5 shall not apply. No louvers, transfer grilles, operable transoms, or other air passages shall penetrate such walls or doors, except properly installed heating and utility installations. 32.3.3.6.5, 33.3.3.6.5					

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ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	EXIT SYSTEM					
K34	Exits or exit components, arranged in accordance with Chapter 7, shall be of types in accordance with 32.3.2 or 33.3.2.					
K35	Capacity of means of egress shall be in accordance with 7.3.					
K38	Access to all required exits shall be in accordance with 7.3. 32.3.2.5.1, 33.3.2.5.1					
K43	DOORS 2000 Existing Doors in means of egress shall be as follows: (1) Doors complying with 7.2.1 shall be permitted. (2) Doors within individual rooms and suites of rooms shall be permitted to be swinging or sliding. (3) No door in any means of egress shall be locked against egress when the building is occupied. ☐ *Exception No. 1: The requirement of 33.3.2.2.2(3) shall not apply to delayed-egress locks in accordance with 7.2.1.6.1, provided that not more than one device exists in a means of egress.* ☐ *Exception No. 2: The requirement of 33.3.2.2.2(3) shall not apply to access-controlled egress doors in accordance with 7.2.1.6.2.* (4) Revolving doors complying with 7.2.1.10 shall be permitted. 33.3.2.2.2, 32.3.2.2.2					
	2000 NEW (5) Every bathroom door shall be designed to allow opening from the outside during an emergency when locked. 32.3.2.2.2					
K32	Not less than two exits shall be accessible from every story, including floors below the level of exit discharge and floors occupied from public purposes. 33.3.2.4, 32.3.2.4					

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ID PREFIX	LARGE FACILITY PROMPT AND SLOW EVACUATION CAPABILITIES	MET	NOT MET	N/A	REMARKS	LARGE PROMPT & SLOW
	The width of corridors shall be sufficient for the occupant load served but shall be not less than 44 in. (112cm). ☐ *Exception: Corridors serving an occupant load fewer than 50 shall be not less than 36 in. (91cm) wide.* 33.3.2.3.3, 32.3.2.3.3					
	Stairs complying with 7.2.2 shall be permitted. 33.3.2.2.3, 32.3.2.2.3					
	ARRANGEMENT OF MEANS OF EGRESS					
K40	2000 EXISTING Common paths of travel shall not exceed 110 ft (33.5m) ☐ *Exception: In buildings protected throughout by automatic sprinkler systems in accordance with 33.3.3.5, common path of travel shall not exceed 160ft (48.8m).* Dead-end corridors shall not exceed 50 ft (15m). 33.3.2.5					
	2000 NEW Common paths of travel shall not exceed 125ft (38.1m). Dead end corridor shall not exceed 50ft (15m). 32.3.2.5.2					
	SUBDIVISION OF BUILDING SPACES					
K120	Every sleeping room floor shall be divided into not less than two smoke compartments of approximately the same size, with smoke barriers in accordance with 8.3. Smoke dampers shall not be required. Additional smoke barriers shall be provided such that the travel distance from a sleeping room corridor door to a smoke barrier shall not exceed 150 ft (45m). ☐ *Exception No. 1: Buildings protected throughout by an approved automatic sprinkler system installed in accordance with 33.3.3.5.* ☐ *Exception No. 2: Where each sleeping room is provided with exterior ways of exit access arranged in accordance with 7.5.3.*					

ID PREFIX	LARGE FACILITY IMPRACTICAL EVACUATION	MET	NOT MET	N/A	REMARKS	LARGE IMPRACTICAL
	☐ *Exception No. 3: Smoke barriers shall to be required where the aggregate corridor length on each floor is not more than 150 ft (45m). 33.3.3.7*					
K36	2000 EXISTING Travel distance from the corridor door of any room to nearest exit shall be a maximum of 100 feet. 33.3.2.6.2					
	2000 NEW Travel distance from the corridor door of any room to the nearest exit, measured in accordance with 7.6, shall not exceed 200 feet (60m). 32.3.2.6.2					
	2000 EXISTING Travel distance from the door or most remote room in a suite or apartment to the corridor shall not exceed 75 feet (23m). ☐ *Exception: Travel distance may be 125ft (48m) in building protected throughout by an approved automatic sprinkler system in accordance with 33.3.3.5.* 33.3.2.6.1					
	2000 NEW Travel distance within a room, suite, or living unit to a corridor door shall not exceed 125 ft (38.1m) 32.3.2.6.1.					
	INTERIOR FINISH					
K14	2000 EXISTING Interior wall and ceiling finish shall be Class A or Class B in accordance with Section 10.2. Interior floor finish in accordance with 10.2.7 shall be Class I or Class II in corridors and exits. ☐ *Exception: Previously installed floor coverings, subject to the approval of the authority having jurisdiction.* 33.3.3.3					

ID PREFIX	LARGE FACILITY IMPRACTICAL EVACUATION	MET	NOT MET	N/A	REMARKS	LARGE IMPRACTICAL
	2000 NEW Interior finish shall be in accordance with10.2. 10.2, 32.3.3.3.1.					
K15	Interior wall and ceiling finish materials complying with 10.2.3 shall be permitted as follows: (1) Exit enclosures - Class A (2) Lobbies and corridors - Class A or Class B (3) Other spaces - Class A or Class B 32.3.3.3.2					
K16	Interior floor finish in corridors and exits shall be class I or II in accordance with 10.2.7, 32.3.3.3.3.					
K20	2000 EXISTING Any vertical opening shall be enclosed or protected in accordance with 8.2.5. ☐ *Exception No. 1: Unprotected vertical openings not part of required egress shall be permitted to be waived by the authority having jurisdiction where such openings do not endanger required means of egress. This exception shall apply only in buildings protected throughout by an approved automatic sprinkler system in accordance with 33.3.3.5.1 and in which exits and required ways of travel thereto are adequately safeguarded against fire and smoke within the building, or in which every individual room has direct access to an exterior exit without passing through a public corridor.* ☐ *Exception No. 2: In buildings not more than two stories in height, unprotected vertical openings shall be permitted by the authority having jurisdiction if the building is protected throughout by an approved automatic sprinkler system in accordance with 33.3.3.5.1* No floor below the level of exit discharge used only for storage, heating equipment, or purposes other than residential occupancy shall have unprotected openings to floors used for residential occupancy. 32.3.3.1.1, 32.3.3.1.2, 33.3.3.1.1, 33.3.3.1.2					

ID PREFIX	LARGE FACILITY IMPRACTICAL EVACUATION	MET	NOT MET	N/A	REMARKS	LARGE IMPRACTICAL
K21	Building Services 2000 EXISTING Utilities shall comply with the provisions of 9.1. Heating, ventilating, and air conditioning equipment shall comply with the provisions of 9.2. No stove or combustion heater shall be located to block escape in case of fire caused by the malfunction of the stove or heater. Unvented fuel-fired heaters shall not be used in any board and care occupancy. Elevators, dumbwaiters, and vertical conveyors shall comply with the provisions of 9.4. Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of 9.5. 33.3.6.1, 33.3.6.2, 33.3.6.2.1, 33.3.6.2.2, 33.3.6.2.3. 33.3.6.3, 33.3.6.4					
	2000 NEW In high-rise buildings, one elevator shall be provided with a protected power supply and shall be available for use by the fire department in case of emergency. 32.3.6.1, 32.3.6.2, 32.3.6.2.1, 32.3.6.2.2, 32.3.6.2.3, 32.3.6.3.1, 32.3.6.3.2, 32.3.6.4 **Facilities housing groups of persons classed as IMPRACTICAL TO EVACUATE shall meet the requirements for custodial care facilities, Chapter 18 or 19 as appropriate.** ☐ *Exception: Facilities found to have equivalent safety. Example 7.5 Using the applicable mandatory safety requirement.* 32.3.1.2.2 See CMS-2786R					

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Fire Safety Evaluation Worksheet for a Large Facility

Fig. 7.5

Facility Identification _____

Evaluator _____ Date _____

(Complete one worksheet for each large facility. This normally means a capacity for more than 16 residents.)

First complete Fig. 7.5.1. Continue with Fig. 7.5.2, 7.5.3, 7.5.4A, 7.5.4B, 7.5.5. Then return to this page to obtain the Equivalency Conclusions.

TURN TO NEXT PAGE

Part 2E. Equivalency Conclusions

Complete Fig. 7.5.1 through 7.5.5 before doing this part.

1. All of the checks in Fig. 7.5.5 are in the "YES" column. The level of fire safety is at least equivalent to that prescribed for large residentail facilities.*

2. One or more of the checks in Fig. 7.5.5 is in the "NO" column. The level of fire safety is not shown by this system to be equivalent to that prescribed by the Life Safety Code for large residential facilities.

*The equivalency covered by this worksheet includes the majority of considerations covered by the Life Safety Code. There are a few considerations that are not evaluated by this method. These must be considered separately. These additional considerations are covered in the "Facility Fire Safety Requirements Worksheet." One copy of this separate worksheet is to be completed for each facility.

Facility Fire Safety Requirements Worksheet

Considerations	Met	Not Met	Not Applicable
A. Utilities comply with provisions of 9.1.			
B. Heating, ventilating, and air conditioning equipment comply with provisions of 9.2.			
C. Elevators, dumbwaiters, and vertical conveyors comply with the provisions of 9.4.			
D. Rubbish chutes, incinerators, and laundry chutes comply with the provisions of 9.5.			
E. Complies with the applicable requirements of Sections 32.7 and/or 33.7.			

FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER K1	FACILITY NAME	SURVEY DATE * K4

K6 DATE OF PLAN APPROVAL

K3 MULTIPLE CONSTRUCTION
TOTAL NUMBER OF BUILDINGS _____
NUMBER OF THIS BUILDING _____

A BUILDING
B WING
C FLOOR
D APARTMENT UNIT

LSC FORM INDICATOR

Health Care Form		
12	2786R	2000 EXISTING
13	2786R	2000 NEW

ASC Form		
14	2786U	2000 EXISTING
15	2786U	2000 NEW

ICF/MR Form		
16	2786V, W, X	2000 EXISTING
17	2786V, W, X	2000 NEW

* K7 ☐ SELECT NUMBER OF FORM USED FROM ABOVE

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)
K8 ☐ 1 PROMPT 2 SLOW 3 IMPRACTICAL

LARGE
K8: ☐ 4 PROMPT 5 SLOW 6 IMPRACTICAL

APARTMENT HOUSE
K8: ☐ 7 PROMPT 8 SLOW 9 IMPRACTICAL

(Check if K29 or K56 are marked as not applicable in the 2786 M, R, T, U, V, W, X and Y.)

K29 ☐ K56: ☐

ENTER E – SCORE HERE

K5: ☐ e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON *(Check all that apply)*

A1. ☐ (COMP. WITH ALL PROVISIONS)
A2. ☐ (ACCEPTABLE POC)
A3. ☐ (WAIVERS)
A4. ☐ (FSES)
A5. ☐ (PERFORMANCE BASED DESIGN)

FACILITY DOES NOT MEET LSC

B. ☐

K0180
A. ☐ FULLY SPRINKLERED (All required areas are sprinklered)
B. ☐ PARTIALLY SPRINKLERED (Not all required areas are sprinklered)
C. ☐ NONE (No sprinkler system)

* MANDATORY

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

2000 CODE ICFs/MR

Form Approved
OMB No. 0938-0242

FIRE SAFETY SURVEY REPORT - 2000 LIFE SAFETY CODE
Intermediate Care Facilities for the Mentally Retarded
APARTMENT HOUSE

1. (A) PROVIDER NO. K1

1. (B) MEDICAID I.D. NO. K2

PART I — 32 or 33 — Residential Board & Care Occupancies — Requirements
PART II — 7.7 (101A, 2001) — Fire Safety Evaluation System for Board & Care (Optional)

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY

2. (A) MULTIPLE CONSTRUCTION (BLDGS) K3
A. BUILDING _____
B. WING _____
C. FLOOR _____

2. (B) ADDRESS OF FACILITY (STREET, CITY, STATE, ZIP CODE)

A. ☐ Fully Sprinklered (All required areas are sprinklered)
B. ☐ Partially Sprinklered (Not all required areas are sprinklered)
C. ☐ None (No sprinkler system)
K2180

4. DATE OF SURVEY K4

DATE OF PLAN APPROVAL K6

SURVEY UNDER: K7
9. ☐ 2000 ☐ Chapter 32 New ☐ Chapter 33 Existing

E-SCORE K5

E-Score	Level of Evacuation Difficulty
≤ 1.5	Prompt
> 1.5 ≤ 5.0	Slow
> 5.0	Impractical

5. SURVEY FOR CERTIFICATION OF: APARTMENT HOUSE - LEVEL OF EVACUATION DIFFICULTY *(check one)*
7. ☐ Prompt 8. ☐ Slow 9. ☐ Impractical
K8

6. BED COMPOSITION
a. TOTAL NO. OF BEDS IN THE FACILITY

b. NUMBER OF ICF/MR BEDS CERTIFIED FOR MEDICAID

c. NUMBER OF ICF/MR BEDS CERTIFIED FOR MEDICAID

7. A. ☐ THE FACILITY MEETS, BASED UPON *(check all appropriate boxes)*:
1. ☐ COMPLIANCE WITH ALL PROVISIONS 2. ☐ ACCEPTANCE OF A PLAN OF CORRECTION 4. ☐ FSES 5. ☐ PERFORMANCE BASED DESIGN
B. ☐ THE FACILITY DOES NOT MEET THE STANDARD
K9

SURVEYOR *(Signature)*	TITLE	OFFICE	DATE
SURVEYOR ID K10			
FIRE AUTHORITY OFFICIAL *(Signature)*	TITLE	OFFICE	DATE

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-0242. The time required to complete this information collection is estimated to average 5 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to CMS, Attn: PRA Reports Clearance Officer, 7500 Security Boulevard, Baltimore, Maryland 21244-1850.

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Page 1

INSTRUCTIONS FOR COMPLETING THIS FORM (CMS-2786X)
SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY

1. **FIRST** complete FORM CMS-2786Y *(Small Facility Survey Report)*

2. **NEXT** complete **THIS** form, to rate the suitability of the Apartment Building to House a Board and Care Occupancy.
   NOTE: The items on this form refer to the part of the building the Board and Care Occupancy (Apartment).

3. If using NFPA 101A Figure 7.7 — FSES/BC — Rating the Building, complete Part I of this form FIRST.
   NOTE: When using this form, you must also complete a CMS 2786Y.

ID PREFIX	SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY	MET	NOT MET	N/A	REMARKS	APARTMENT HOUSE
	NOTE: You must complete a CMS-2786Y for each Apartment unit with a Board & Care Occupancy.					
	BUILDING CONSTRUCTION					
K12	Minimum Construction Requirements: (Based on highest story normally used by residents) PROMPT and SLOW One and Two Story ❑ Any construction type of one-hour or greater fire rating or, ❑ Type IV (2HH) or, ❑ Fully sheathed or, ❑ With automatic sprinkler system throughout, in accordance with Section 9.6 and 9.7. ❑ *Exception: One story any construction type and no more than 30 residents capable of prompt evacuation.* Three to Six Stories ❑ Type I, II or III construction of one-hour or greater fire rating or, ❑ Type IV construction with automatic sprinkler system throughout in accordance with Section 9.6 or 9.7. ❑ *Exception: Three or four story facilities of type V (000), sheathed and with automatic sprinkler system throughout, in accordance with Sections 9.6 and 9.7.* More than Six Stories ❑ Type I or II (222) construction or, ❑ Type II (111) construction or, ❑ Type III (211) construction or, ❑ Type IV (2HH) with automatic sprinkler system throughout in accordance with Sections 9.6 and 9.7. Minimum Construction Requirements: (Based on highest story normally used by residents) PROMPT and SLOW ❑ Type I or II (222) construction, beyond 75 feet in height with automatic sprinkler protection throughout in accordance with Section 9.6 and 9.7. ❑ Type II (111) construction, limited to three stories with automatic sprinkler protection throughout in accordance with Sections 9.6 and 9.7 ❑ Type II (000), III (211), IV (2HH), V (111) limited to one story with automatic sprinkler protection throughout in accordance with Section 9.6 and 9.7. 32.3.1.3, 33.3.1.3					

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ID PREFIX	SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY	MET	NOT MET	N/A	REMARKS	APARTMENT HOUSE
	HAZARDOUS AREAS (Outside B & C Units)					
K29	Where buildings are without suppression or detection *systems*, or have total automatic detection or partial sprinkler protection every hazardous area shall be separated by construction of one-hour fire rating. Openings shall be protected by smoke-actuated automatic or self-closing fire doors, with a ¾ hour fire rating or the area is equipped with an automatic sprinkler *system*. Hazardous areas include, but are not limited to: ❑ Boiler and heater rooms ❑ Laundries ❑ Repair shop ❑ Rooms or spaces used for storage of combustibles or equipment deemed hazardous by the authority having jurisdiction. Where buildings have an automatic extinguishment *system* installed in accordance with NFPA 13, areas may be smoke-resisting construction. 30.3.2, 31.3.2, 8.4					
K211	2000 EXISTING Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 19.3.2.7, CFR 483.470					

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ID PREFIX	SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY	MET	NOT MET	N/A	REMARKS	APARTMENT HOUSE
K211	2000 NEW Where Alcohol Based Hand Rub (ABHR) dispensers are installed: ❑ The corridor is at least 6 feet wide ❑ The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) ❑ The dispensers shall have a minimum spacing of 4 ft from each other ❑ Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. ❑ Dispensers are not installed over or adjacent to an ignition source. ❑ If the floor is carpeted, the building is fully sprinklered. 18.3.2.7, CFR 483.470					
	MANUAL FIRE ALARM					
K51	Apartment buildings with more than three stories or more than eleven units shall have a fire alarm system, not a presignal type, with occupant notification accomplished automatically and without delay in accordance with Section 9.6, 30.3.4, 31.3.4. An annunciator panel shall be provided. 31.3.4.3.2.					
K155	Where a required fire alarm system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown untilt e fire alarm system has been returned to service. 9.6.1.8					
	SMOKE DETECTION AND ALARM (Outside B & C)					
K109	Every living unit within the apartment building regardless of number of stories, number of apartments, sprinkler system or other detection system shall have approved single or multiple station smoke detectors installed, powered by house electrical service. ❑ *Exception: Where the building is equipped with a total automatic smoke detection system throughout.* 30.3.5, 31.3.4.4					

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ID PREFIX	SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY	MET	NOT MET	N/A	REMARKS	APARTMENT HOUSE
	AUTOMATIC SPRINKLER (Outside B & C)					
K56	Where buildings are required to be protected throughout by an approved automatic sprinkler system and where a partial system is required, the system shall be in accordance with Section 9.7. 30.3.5					
K64	Portable fire extinguishers shall be provided in hazardous areas in accordance with Section 9.7.4.1 unless the building is provided with an appropriate supervised automatic sprinkler system. 30.3.5.7					
K154	Where a required automatic sprinkler system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch system be provided for all parties left unprotected by the shutdown until the sprinkler system has been returned to service. 9.7.6.1					
	A. Date sprinkler system last checked and necessary maintenance provided. _____					
	B. Show who provided the service. _____					
	C. Note the source of the water supply for the automatic sprinkler system. _____					
	(Provide, in REMARKS, information on coverage for any non-required or partial automatic sprinkler system.)					
	SEPARATION OF B. C. UNIT AND ITS EXIT ROUTES					
K38	2000 EXISTING Exit access corridors shall be protected as follows: ❑ 1. Where buildings do not have an automatic sprinkler or detection system, corridor walls shall have one-hour fire rating. ❑ 2. Where buildings have a partial sprinkler or detection system, corridor walls shall have ¾ hour fire rating. ❑ 3. Where buildings have an automatic sprinkler system through, corridor walls shall have ½ hour fire ratings. 31.3.6					

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ID PREFIX	SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY	MET	NOT MET	N/A	REMARKS	APARTMENT HOUSE
	2000 New Exit access corridor walls shall consist of fire barriers in accordance with 8.2.3 that have no less than ½ hour fire resistance rating. Exception: In buildings protected throughout by an approved automatic sprinkler system in accordance with 29.3.5, no fire resistance rating shall be required, but the walls and all openings therein shall resist the passage of smoke. 30.3.6, 32.4.2, 31.3.6					
K18	Doors between apartments and corridors shall be self-closing and have a minimum 20 minute fire rating. 30.3.6.2, 31.3.6.2					
	EXIT SYSTEM					
K32	At least two acceptable exits, remote from each other, are provided for each floor or fire section. At least half of the required number of units of exit width shall lead directly to the street. ❑ Exception No. 1: A living unit with direct exit to street at ground level or an outside stairway or an enclosed stairway, of one hour fire rating, serving that unit only, may have a single exit. ❑ Exception No. 2: Where there are a maximum of four living units per floor with no more than 20 feet from each unit's entrance door to an exit, may have a single exit of a smokeproof tower or outside stair in accordance with 5.2.3. ❑ Exception No. 3: Where there is no more than three stories and living units are separated, vertically and horizontally by 3/4 hour fire rating, may have a single exit if the stairway is of one hour construction, serving as access with a maximum of 35 feet from each unit's entrance door to exit. 7.3, 30.2.4, 31.2.4, 32.3.2.4					
K35	Capacity of exits in number of persons per unit of exit width is in accordance with 7.3. 30.2.3.1, 31.2.3.1					
	EXIT ACCESS					
K36	Travel distance from the door of a room in a living unit to a corridor door and a living unit entrance door to the nearest exit are in accordance with Table A.31.1. 30.2.6.					

ID PREFIX	SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY	MET	NOT MET	N/A	REMARKS	APARTMENT HOUSE
	INTERIOR FINISH					
K14	Interior finish on walls, ceilings and floors are in accordance with and shall apply to the parts of means of egress serving the apartments used as a residential board and care occupancy. 30.3.3, 31.3.3.					
	VERTICAL OPENINGS					
K20	Stairways, elevator shafts and other vertical openings are in accordance with 30.3.1, 29.3.1, 31.3.1					
	SMOKE CONTROL					
K24	Exit access corridors shall be provided with smoke barriers in accordance with Section 8.3. The maximum length of each smoke compartment shall be 200 feet. Smoke dampers are not required. ❑ *Exception No. 1: Where buildings have an automatic sprinkler system throughout.* ❑ *Exception No. 2: Where exit access is through an atrium 8.2.5.6.* ❑ *Exception No. 3: Where exterior exit access provides access to two exits 7.5.3.* ❑ *Exception No. 4: Buildings complying with 31.3.7, Exceptions 1,2, and 3.* ❑ *Exception No. 5: Buildings with exits maximum 50 feet apart.* ❑ *Exception No. 6: Where each dwelling unit has direct access to exterior at grade. 31.3.7, 33.4.3.3.*					
K44	Horizontal exits required to limit maximum gross area shall be as specified in 7.2.4.2. 31.2.2.5					
	SPECIAL FEATURES					
K126	Where buildings are greater than six stories with 1 total automatic fire detection system per N.F.P.A. 72E, but without an automatic sprinkler system, the interior exit access corridors shall be continuously pressurized at a minimum of 0.01 inches water, measured at any living unit door. 31.2.11, 7.2.3					

ID PREFIX	SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY	MET	NOT MET	N/A	REMARKS	APARTMENT HOUSE
	BUILDING SERVICES EQUIPMENT					
K117	Utilities shall comply with provision of Section 9.1. 32.3.6.1, 33.3.6.1.					
K67	Heating, ventilating and air conditioning equipment shall comply with the provisions of Section 9.2. 32.3.6.2, 33.3.6.2					
K118	Elevators, dumbwaiters and vertical conveyors shall comply with the provisions of Section 9.4. 32.3.6.3, 32.3.6.3.2, 33.3.6.3					
K71	Rubbish chutes, incinerators and laundry chutes shall comply with the provisions of Section 9.5. 32.3.6.4, 33.3.6.4					
	OPERATING FEATURES					
K127	Every required automatic sprinkler system, fire detection and alarm system, smoke control system, exit lighting, fire door and other item of equipment required by this code shall be continuously maintained in proper operating condition. 4.6.12					
K72	No furnishings, decorations or other objects are placed to obstruct exits or visibility of exits. 7.5.2.2 32.7.5					
K73	No furnishings or decorations of an explosive or highly flammable character are used. 18.7.5.4, 19.7.5.4					
	EMERGENCY PLAN, FIRE DRILLS					
K48	There is a written plan for the protection of all persons and for their evacuation in the event of an emergency. All employees shall be instructed and reviewed as to their duties and responsibilities under the plan. 32.7.1, 33.7.1					

ID PREFIX	SUITABILITY OF AN APARTMENT BUILDING TO HOUSE A BOARD AND CARE OCCUPANCY	MET	NOT MET	N/A	REMARKS	APARTMENT HOUSE
K128	All residents capable of assisting in their evacuation shall be trained in the proper actions to take in the event of a fire. 32.7.2, 33.7.2					
K50	Fire exit drills shall be conducted twelve times per year, quarterly on each shift. Drills shall involve actual evacuation to a selected assembly point and provide experience in exiting through all exits. Exits not used in any fire drill shall not be credited in meeting the requirements of the code. 42 CFR 483.470 Subpart L					
K66	Where smoking is permitted, noncombustible safety-type ash trays or receptacles shall be provided in convenient locations. 32.7.4, 33.7.4					
	ILLUMINATION AND EMERGENCY POWER					
K45	Every public space, hallway, stairway and other means of egress shall have illumination in accordance with Section 7.8. 30.2.8, 31.2.8					
K46	Any apartment building with more than twelve living units or greater than three stories shall have emergency lighting in accordance with Section 7.8. ❑ *Exception: Where every living unit has a direct exit to the outside at grade level.*					
K47	Signs marking means of egress shall be in accordance with section 7.10 and provided in all apartment buildings requiring more than one exit. 30.2.10, 31.2.10					

FIRE SAFETY EVALUATION WORKSHEET FOR AN APARTMENT BUILDING WITH BOARD AND CARE OCCUPANCIES

G3

Building Identification _____

Evaluator_____Date _____

(Complete one worksheet for each apartment house containing one or more apartment units with a board and care occupancy.)

First complete Table 7.7. Continue with Fig. 7.7.1 through 7.7.5. Then return to this page to obtain the Equivalency Conclusions.

TURN TO NEXT PAGE

Part 3E. Equivalency Conclusions

Complete Tables 7.7.2 through 7.7.7 before doing this part.

1. ❑ All of the checks in Table 7.7.7 are in the "YES" column. The level of fire safety is at least equivalent to that prescribed for apartments.*

2. ❑ One or more of the checks in Table 7.7.7 is in the "NO" column. The level of fire safety is not shown by this system to be equivalent to that prescribed by the Life Safety Code for apartments.

*The equivalency covered by this worksheet includes the majority of considerations covered by the Life Safety Code. There are a few considerations that are not evaluated by this method. These must be considered separately. These additional considerations are covered in the "Facility Fire Safety Requirements Worksheet." One copy of this separate worksheet is to be completed for each facility.

FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

CONSIDERATIONS	MET	NOT MET	N/A
A. Utilities comply with provisions of 9.1			
B. Heating, ventilating, and air conditioning equipment comply with provisions of 9.2.			
C. Elevators, dumbwaiters, and vertical conveyors comply with the provisions of 9.4.			
D. Rubbish chutes, incinerators, and laundry chutes comply with the provisions of 9.5.			
E. Complies with the applicable requires of 32.7, 33.7 (Operating Features).			

Table G-3A

Worksheets for evaluating fire safety for an apartment building with board and care occupancies.

WORKSHEET 7.7.1 COVER SHEET

Fire Safety Evaluation Worksheet for an Apartment Building with Board and Care Occupancies

Building Identification _____

Evaluator _____ Date _____

WORKSHEET 7.7.2 SAFETY PARAMETER VALUES — APARTMENT BUILDING

Safety Parameters	Parameter Values							
1. Construction	Combustible					Noncombustible		
Building Height	Type V (000)	Type V (111)	Type III (200)	Type III (211)	Type IV (2HH)	Type II (000)	Type II (111)	Type II (222) & Type I
1 Story	-2( )[a]	0	-2( )[a]	0	0	0	2	2
2 Stories	-6( )[a]	0	-6( )[a]	0	0	-5( )[a]	2	2
3-4 Stories	-8( )[a]	-2(0)[a]	-8( )[a]	0	-2(0)	-6( )[a]	2	2
5-6 Stories	-8	-2(0)[a]	-8( )[a]	0	-2(0)[a]	-6( )[a]	2	2
Over 6 Stories	-10	-4	-10	-2(0)[a]	-4(0)	-8	0	2

2. Hazardous Areas (outside board & care home units)	Double Deficiency	Single Deficiency	None or No Deficiency
	-4(-7)[a,c]	0(-4)[c]	0

3. Manual Fire Alarm	None or Incomplete	Manual Alarm w/o F.D. Notification	Manual Alarm w/F.D. Notification
	0(2)[a]	2	3

4. Smoke Detection and Alarm (outside board & care home units)		Single Station Living Units Only		Interconnected System Corrs. & Common Spaces	Interconnected System Corrs., Common Spaces, & Living Units	Interconnected System Total Building
	None or Incomplete	Single Level	Every Level			
	-4(0)[a]	0	-2(0)[a]	-3(0)[a]	4	6

5. Automatic Sprinklers (outside board & care home units)	None or Incomplete	Corrs., Public Space	Living Units Only	Corrs., Hab., & Public Spaces	Total Building
	0	2(0)[c]	4(0)[c]	6	8

6. Separation of Board & Care Home Unit and Its Exit Route from Other Spaces		Walls <30 min		Walls>30 min to <1 hr		Walls>1 hr	
	None or Incomplete	Doors <20 min w/o Closer	Doors≥20 min w/o Closer	Doors<20 min w/Closer	Doors≥20 min w/Closer	Doors<20 min w/Closer	Doors≥20 min w/Closer
	-6	-2	0(-2)[a]	1(-2)[a]	2(-2)[a]	1(-2)[a]	4(-2)[a]

7. Exit System (serving board & care home units)	<2 Standard Routes	Multiple Routes Deficient	Multiple Routes w/o Horiz.Exit	Multiple Routes w/Horiz. Ext	Multiple Routes Smokeproof Enclosure	Multiple Routes Direct Exit
	-6	-2	0	2	2	4

8. Exit Access (serving board & care home units)	Max. Dead End Is >100 ft	>50 ft or corridor common path>35 ft	No Dead End >50 ft and >200 ft	>150 ft to ≤200 ft	>100 ft to ≤150 ft	>50 ft to ≤100 ft	<50 ft
	-6(0)[a]	-4(0)[a]	-2	-1	0	1	2

9. Interior Finish (egress routes serving board & care home units)	Flame-Spread Rating >75 to ≤200	>25 to ≤75	≤25
	-3	-1	0

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Table G-3A

WORKSHEET 7.7.2 *(continued)*

10. Vertical Openings	Open or Incomplete Enclosure			Enclosed[h]	
	Thru 5 or More Floors	3-4 Floors	2 Floors	<1 hr[f]	≥1hr[f]
	-10	-7	-2	0	10[g]

11. Smoke Control (serving floors having board & care home units)		Smoke	Mechanically Assisted Systems		
	None	Barriers	By Zone	By Unit	By Corridor
	0(2)[i]	2	3	3	4

NOTES:

[a] Use (-1X height in stories) if building is fully sheathed with plaster, gypsum board, or similar materials but not <-2 if parameter 5 is 8.

[b] Use ( ) if Parameter 1 is based on Type V(000), Type III(200), or Type II(000), if Note [a] does not apply, and if parameter 5 is ≤4.

[c] Use ( ) if Parameter 1 is based on Type V(000), Type III(200), or Type II(000).

[d] Use ( ) if Parameter 7 is -6.

[e] Use ( ) if Parameter 6 is based on "None or Incomplete," or "Walls or Doors are 1/2 hour walls /20 minute doors and Parameter 5 is <4.

[f] ≥30 min in existing building.

[g] Use ( ) if hazardous area is on exit route or in refuge area serving group home unit.

[h] Use 0 in 1 story building

[i] Use (2) in 1-3 story buildings with <12 living units.

[j] Use ( ) if Parameter 5 is ≥6

[k] Use (0) if Parameter 5 is 8.

[l] Use ( ) where exceptions to 31.3.7 (NFPA *101*) apply.

For SI units: 1 ft = 0.348m.

Part 3B. Complete Individual Safety Evaluations – Use Worksheet 7.7.3

1. Transfer each of the 8 circled safety parameter values from Table G-3A to every unshaded block in the line with the corresponding safety parameter in Table G-3B. Where the block is indicated (÷2) enter only one half the value shown in Table G-3A.
2. Add the four columns, keeping in mind that any negative numbers deduct.

Transfer the resulting values for S_1, S_2, S_3 and S_4 to Table G-3D.

WORKSHEET 7.7.3 INDIVIDUAL INSERT SAFETY EVALUATIONS — APARTMENT BUILDINGS

Safety Parameters	Fire Control (S_1)	Egress Provided (S_2)	Refuge Provided (S_3)	General Fire Safety Provided (S_4)
1. Construction				
2. Hazardous Areas		÷ 2 =		
3. Manual Fire Alarm	÷ 2 =			
4. Smoke Detection and Alarm	÷ 2 =			
5. Automatic Sprinklers		÷ 2 =	÷ 2 = (Garage)	
6. Separation of Living Units		÷ 2 =		
7. Exit system			÷ 2 =	
8. Exit Access				
9. Interior Finish				
10. Vertical Openings	÷ 2 =			
11. Smoke Control				
Total	S_1 =	S_2 =	S_3 =	S_4 =

NOTE: Use full value if Safety Parameter 1 is based on Type V (000), Type III (200), or Type II(000) construction. Divide by 2 (÷2) in all other cases.

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Determine Mandatory Requirements — Use Figure 7.7.4

1. Using the level of requirement based on evacuation capability (see 21-1.3) to select the proper row of Figure 7.7.4. Circle the appropriate values.
2. Transfer the circled values from Table 7.74A to the blocks marked for Sa, Sb, Sc and Sd to Table G-3D.

WORKSHEET 7.7.4A MANDATORY REQUIREMENTS — SPRINKLERED AND NONSPRINKLERED APARTMENT BUILDINGS

	Level of Evacuation	Control Requirements (Sa)		Egress Requirements (Sb)		Refuge Requirements (Sc)		General Fire Safety Requirements (Sd)	
Building Height	Difficulty	New	Exist.	New	Exist.	New	Exist.	New	Exist.
1 Story	Prompt/Slow	10	3	4.5	6	8	3	8	6
	Impractical	11	6	4.5	6	5	6	9	9
2–6 Stories	Prompt/Slow	10.5	4.5	6	7	9	5	9	8
	Impractical	14.5	6.5	6	7	9	7	13	10
>6 Stories	Prompt/Slow	12.5	11.5	6	7.5	7	8	11	10
	Impractical	14.5	13.5	6	7.5	9	10	13	14

WORKSHEET 7.7.4B MANDATORY REQUIREMENTS — NEW NONSPRINKLERED APARTMENT BUILDINGS MEETING EXCEPTION TO 30.3.5.2 (NFPA 101)

Building Height	Level of Evacuation Difficulty	Control Requirements (Sa)	Egress Requirements (Sb)	Refuge Requirements (Sc)	General Fire Safety Requirements (Sd)
1 Story	Prompt/Slow	5	10	5	11
2 Stories	Prompt/Slow	2.5	8	3	7
3–6 Stories	Prompt/Slow	6.5	11	7	13
>6 Stories	Prompt/Slow	8.5	11	9	15

WORKSHEET 7.7.4C MANDATORY REQUIREMENTS — NEW FACILITIES LOCATED IN EXISTING NONSPRINKLERED APARTMENT BUILDINGS

Building Height	Level of Evacuation Difficulty	Control Requirements (Sa)	Egress Requirements (Sb)	Refuge Requirements (Sc)	General Fire Safety Requirements (Sd)
1 Story	Prompt ≤30 residents	4	6	2	6
	Prompt >30 residents or slow	5	6	3	7
2 Stories	Prompt/Slow	4.5	7	3	7
3–6 Stories	Prompt/Slow	6.5	11	7	13

WORKSHEET 7.7.4D MANDATORY REQUIREMENTS — NEW FACILITIES LOCATED IN EXISTING NONSPRINKLERED APARTMENT BUILDINGS

Building Height	Level of Evacuation Difficulty	Control Requirements (Sa)	Egress Requirements (Sb)	Refuge Requirements (Sc)	General Fire Safety Requirements (Sd)
1 Story	Prompt/Slow/Impractical	9	4.5	3	7
2 Stories	Prompt/Slow	10.5	6	5	9
	Impractical	12.5	6	7	11
3–6 Stories	Prompt/Slow	10.5	6	9	9
	Impractical	14.5	6	9	13
>6 Stories	Prompt/Slow	12.5	6	7	11
	Impractical	14.5	6	9	13

(For use with NFPA 101A-2001/NFPA 101-2000, B & C Apts.)

WORKSHEET 7.7.5 EQUIVALENCY EVALUATION

1. Perform the indicated subtractions in Table G-2D. Enter the differences in the appropriate answer blocks.
2. For each row check "YES" if the value in the answer block is zero or greater. Check "NO" if the value in the answer block is a negative number.

					YES	NO
Control Provided (S_1)	minus	Required Control (S_a)	≥ 0	S_1 [ ] − S_a [ ] = [ ]		
Egress Provided (S_2)	minus	Required Egress (S_b)	≥ 0	S_2 [ ] − S_b [ ] = [ ]		
Refuge Provided (S_3)	minus	Required Refuge (S_c)	≥ 0	S_3 [ ] − S_c [ ] = [ ]		
General Fire Safety (S_4)	minus	Required General Fire Safety (S_d)	≥ 0	S_4 [ ] − S_d [ ] = [ ]		

WORKSHEET 7.7.6 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

	CONSIDERATIONS	MET	NOT MET	N/A
A.	Utilities comply with the provisions of *32.3.6.1* and *33.3.6.1*.			
B.	Heating, ventilating, and air conditioning equipment comply with the provisions of *32.3.6.2* and *33.3.6.2*, except for enclosure of vertical openings, which have been considered in Safety Parameter 10 of Worksheet 7.7.2.			
C.	Elevators, dumbwaiters, and vertical conveyors comply with the provisions of *32.3.6.3* and *33.3.6.3*.			
D.	Rubbish chutes, incinerators, and laundry chutes comply with the provisions of *32.3.6.4* and *33.3.6.5*.			
E.	Complies with the applicable requirements of Sections 32.7 and 33.7.			

All references are to NFPA *101, Life Safety Code*

WORKSHEET 7.7.7 CONCLUSIONS

1. ☐ All of the checks in Worksheet 7.7.5 are in the "YES" column. The level of fire safety is at least equivalent to that prescribed by NFPA *101, Life Safety Code*, for apartments to house a board and care occupancy.*

2. ☐ One or more of the checks in Worksheet 7.7.5 are in the "NO" column. The level of fire safety is not shown by this system to be equivalent to that prescribed by NFPA *101* for apartments to house board and care occupancy.

*The equivalency covered by this worksheet includes the majority of considerations covered by NFPA *101, Life Safety Code*. There are some considerations that are not evaluated by this method. These must be considered separately. These additional considerations are covered in Worksheet 7.7.6, "Facility Fire Safety Requirements Worksheet." One copy of this worksheet is to be completed for each facility.

FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER	FACILITY NAME	SURVEY DATE
K1		* K4

K6 DATE OF PLAN APPROVAL

K3 MULTIPLE CONSTRUCTION

TOTAL NUMBER OF BUILDINGS _____

NUMBER OF THIS BUILDING _____

☐ A BUILDING
B WING
C FLOOR
D APARTMENT UNIT

LSC FORM INDICATOR

Health Care Form		
12	2786R	2000 EXISTING
13	2786R	2000 NEW

ASC Form		
14	2786U	2000 EXISTING
15	2786U	2000 NEW

ICF/MR Form		
16	2786V, W, X	2000 EXISTING
17	2786V, W, X	2000 NEW

* K7 ☐ SELECT NUMBER OF FORM USED FROM ABOVE

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)

K8 ☐ 1 PROMPT
2 SLOW
3 IMPRACTICAL

LARGE

K8: ☐ 4 PROMPT
5 SLOW
6 IMPRACTICAL

APARTMENT HOUSE

K8: ☐ 7 PROMPT
8 SLOW
9 IMPRACTICAL

(Check if K29 or K56 are marked as not applicable in the 2786 M, R, T, U, V, W, X and Y.)

K29 ☐ K56: ☐

ENTER E – SCORE HERE

K5: ☐ e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON *(Check all that apply)*

A1. ☐ (COMP. WITH ALL PROVISIONS)
A2. ☐ (ACCEPTABLE POC)
A3. ☐ (WAIVERS)
A4. ☐ (FSES)
A5. ☐ (PERFORMANCE BASED DESIGN)

FACILITY DOES NOT MEET LSC

B. ☐

K0180

A. ☐ FULLY SPRINKLERED (All required areas are sprinklered)
B. ☐ PARTIALLY SPRINKLERED (Not all required areas are sprinklered)
C. ☐ NONE (No sprinkler system)

* MANDATORY

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

2000 CODE ICFs/MR

Form Approved
OMB No. 0938-0242

FIRE SAFETY SURVEY REPORT - 2000 LIFE SAFETY CODE
Intermediate Care Facilities for the Mentally Retarded
SMALL FSES

1. (A) PROVIDER NO. K1

1. (B) MEDICAID I.D. NO. K2

PART III — Chapter 7-101A Fire Safety Evaluation System for Board & Care (Optional)

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY

2. (A) MULTIPLE CONSTRUCTION (BLDGS) K3
A. BUILDING _____
B. WING _____
C. FLOOR _____

2. (B) ADDRESS OF FACILITY (STREET, CITY, STATE, ZIP CODE)

A. ☐ Fully Sprinklered (All required areas are sprinklered)
B. ☐ Partially Sprinklered (Not all required areas are sprinklered)
C. ☐ None (No sprinkler system)
K0190

3. SURVEY FOR
☐ MEDICARE ☐ MEDICAID

4. DATE OF SURVEY K4

DATE OF PLAN APPROVAL K6

SURVEY UNDER: K7
5. ☐ 2000 EXISTING 6. ☐ 2000 NEW

E-SCORE
K5

E-Score	Level of Evacuation Difficulty
≤ 1.5	Prompt
> 1.5 ≤ 5.0	Slow
> 5.0	Impractical

5. SURVEY FOR CERTIFICATION OF: SMALL FACILITY - LEVEL OF EVACUATION DIFFICULTY *(Check one)*
1. ☐ Prompt 2. ☐ Slow 3. ☐ Impractical
K8

6. BED COMPOSITION
a. TOTAL NO. OF BEDS IN THE FACILITY

b. NUMBER OF ICF/MR BEDS CERTIFIED FOR MEDICAID

7. A. ☐ THE FACILITY MEETS, BASED UPON *(Check all appropriate boxes)*:
1. ☐ COMPLIANCE WITH ALL PROVISIONS 2. ☐ ACCEPTANCE OF A PLAN OF CORRECTION 4. ☐ FSES 5. ☐ PERFORMANCE BASED DESIGN
B. ☐ THE FACILITY DOES NOT MEET THE STANDARD
K9

SURVEYOR *(Signature)*	TITLE	OFFICE	DATE
SURVEYOR ID K10			
FIRE AUTHORITY OFFICIAL *(Signature)*	TITLE	OFFICE	DATE

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-0242. The time required to complete this information collection is estimated to average 5 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to CMS, Attn: PRA Reports Clearance Officer, 7500 Security Boulevard, Baltimore, Maryland 21244-1850.

Form CMS-2786Y (03/04) Previous Versions Obsolete

Page 1

Fire Safety Evaluation Worksheet for a Small Facility

Facility Identification _____

Evaluator _____ Date _____

(Complete one worksheet for each individual residence or apartment used as a board and care home. A small facility normally means a capacity for 16 or fewer residents.)

First complete Worksheet 7.3.1. Continue with Worksheets 7.3.3, 7.3.4, 7.3.5 and 7.3.6. Then return to this page to obtain the Equivalency Conclusions.

TURN TO NEXT PAGE

Part 1E. Equivalency Conclusions.

Complete Worksheets 7.3.1 through 7.3.6 before doing this part.

1. ☐ All of the checks in Worksheet 7.3.7 are in the "YES" column. The level of fire safety is at least equivalent to that prescribed by the Life Safety Code.*

2. ☐ One or more of the checks in Worksheet 7.3.7 is in the "NO" column. The level of fire safety is not shown by this system to be equivalent to that prescribed for small dwelling units.

* The equivalency covered by this worksheet includes the majority of considerations covered by the Life Safety Code. There are a few considerations that are not evaluated by this method. These must be considered separately. These additional considerations are covered in the "Facility Fire Safety Requirements Worksheet." One copy of this separate worksheet is to be completed for each facility.

Figure 7.3 Worksheets for evaluating fire safety in a small facility.

WORKSHEET 7.3.1 COVER SHEET

Fire Safety Evaluation Worksheet for Small Facility

Building Identification _____

Evaluator _____ Date _____

WORKSHEET 7.3.2 SAFETY PARAMETER VALUES — SMALL FACILITY

Safety Parameters	Parameter Values								
1. Construction/ Fire Resistance	Exposed Structural Members			Protected 15 min			Protected 1 hr		
	0			1			3		
2. Hazardous Areas	Double Deficiency			Single Deficiency			None or No Deficiency		
	-7			-4			0		
3. Manual Fire Alarm	None or Incomplete			w/o F.D. Notification			w/ F.D. Notification		
	0			1			2		
4. Smoke Detection and Alarm				Warning to All Bedrooms					
	None or Incomplete	Single Lev. Det./ Limited Warning		Every Lev. Det.[e]		Every Lev. Plus Det. in Each Bdrm.	Total Coverage System		
	-4	0		2		3(4)[f]	4		
5. Automatic Sprinklers	Nonsprinklered			Standard Sprinklers			Quick-Response or Residential Sprinklers		
	0			8			10		
6. Interior Finish	Flame-Spread Ratings								
	>75 to ≤200			>25 to ≤75			≤25		
	-3			-1			0		
7. Separation of Sleeping Rooms (from other levels and from corridors)	Unprotected Vertical Openings			Protected Vertical Openings[d]					
	None or Incomp.	Smoke Resisting w/o Closers	Smoke Resisting w/ Closers	None or Incomp.	Smoke Resisting	1/2 hr.	1/2 hr Auto Closing	Smoke Res. w/ Door Closer	1/2 hr w/ Door Closer
	-6	-4	0(0)[c]	-2	0	1(0)[a]	2(0)[a]	1	2(1)[a]
8. Means of Escape — Means of Escape on All Sleeping Levels	<2 Remote Routes			2 Remote Routes Unseparated		2 Remote Routes Separated		Direct Exit from Each Bdrm.	
	w/o Alt. Means	w/ Alt. Means							
	-1	0		1(0)[b]		2(0)[b]		3(0)[b]	
8. Means of Escape — Means of Escape Not on All Sleeping Levels	Primary Route Not Protected				Primary Route Protected				
	<2 Remote Routes		2 Remote Routes		<2 Remote Routes		2 Remote Routes		
	w/o Alt. Means	w/ Alt. Means			w/o Alt. Means	w/ Alt. Means			
	-4	-3	0		-1	0	2(0)[b]		

NOTES:

[a] Use ( ) if Parameter 1 is 0 and Parameter 5 is 0.

[b] use (0) if Parameter 7 is based on a "none or incomplete" situation.

[c] Use (0) if door is 20 minute and has automatic closer.

[d] Consider a single level building as having protected vertical openings.

[e] Every level detection is permitted to be omitted with a quick-response automatic sprinklers throughout; however, detection in each bedroom is required.

[f] Use (4) in existing buildings if detection in each bedroom and quick-response automatic sprinklers throughout.

(For use with NFPA 101A-2001/NFPA 101-2000, II & C Small)

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Figure 7.3 Continued

WORKSHEET 7.3.3 INDIVIDUAL SAFETY EVALUATIONS — SMALL FACILITY

Safety Parameters	Fire Control (S_1)	Egress (S_2)	Refuge (S_3)	General Fire Safety (S_4)
1. Construction				
2. Hazardous Areas		÷ 2 =		
3. Manual Fire Alarm	÷ 2 =	*(See note)*		
4. Smoke Detection and Alarm	÷ 2 =		÷ 2 =	
5. Automatic Sprinklers		÷ 2 =		
6. Interior Finish	÷ 2 =			
7. Separation of Sleeping Rooms				
8. Means of Escape				
Total	S_1 =	S_2 =	S_3 =	S_4 =

NOTE: Maximum value of manual fire alarm for means of escape is 1.

WORKSHEET 7.3.4 MANDATORY SAFETY REQUIREMENTS

Level of Evacuation Difficulty	Control Requirements (S_1)		Egress Requirements (S_2)		Refuge Requirements (S_3)		General Fire Safety Requirements (S_4)	
	New	Exist.	New	Exist.	New	Exist.	New	Exist.
Prompt	10(½)[a]	0	5(5)[a]	4	11(2½)[a]	2	7(2)[a]	1
Slow	10	2	9	7	11	4	11	7
Slow[b]		1		6		2		5
Impractical	10	8	10	9	11	9	12	10

[a] Use ( ) for small board and care facility conversion serving eight or fewer residents with an evacuation capability rating of "prompt."

[b] In existing buildings only, use these mandatory safety requirements if evacuation time is 8 minutes or less or if the evacuation capability score is 3 or less as determined by Chapter 6.

(For use with NFPA 101A-2001/NFPA 101-2000, B & C Small)

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Figure 7.3 Continued

WORKSHEET 7.3.5 EQUIVALENCY EVALUATION

					YES	NO
Control Provided (S_1)	minus	Required Control (S_a)	≥ 0	S_1 ☐ – S_a ☐ = ☐		
Egress Provided (S_2)	minus	Required Egress (S_b)	≥ 0	S_2 ☐ – S_b ☐ = ☐		
Refuge Provided (S_3)	minus	Required Refuge (S_c)	≥ 0	S_3 ☐ – S_c ☐ = ☐		
General Fire Safety (S_4)	minus	Required General Fire Safety (S_d)	≥ 0	S_4 ☐ – S_d ☐ = ☐		

WORKSHEET 7.3.6 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

CONSIDERATIONS	MET	NOT MET
A. Complies with the applicable requirements of Sections 32.7 and 33.7. (NFPA *101*).		

WORKSHEET 7.3.7 CONCLUSIONS

1. ☐ All of the checks in Worksheet 7.3.5 are in the "YES" column. The level of fire safety is at least equivalent to that prescribed by NFPA *101, Life Safety Code.**

2. ☐ One or more of the checks in Worksheet 7.3.5 are in the "NO" column. The level of fire safety is not shown by this system to be equivalent to that prescribed by NFPA *101* for small dwelling units.

*The equivalency covered by this worksheet includes the majority of considerations covered by NFPA *101, Life Safety Code*. There are some considerations that are not evaluated by this method. These must be considered separately. These additional considerations are covered in Worksheet 7.3.6, "Facility Fire Safety Requirements Worksheet." One copy of this worksheet is to be completed for each facility.

(For use with NFPA 101A-2001/NFPA *101*-2000, B & C Small)

FIRE SAFETY SURVEY REPORT
CRUCIAL DATA EXTRACT
(TO BE USED WITH CMS-2786 FORMS)

PROVIDER NUMBER	FACILITY NAME	SURVEY DATE
K1		* K4

K6 DATE OF PLAN APPROVAL

K3 MULTIPLE CONSTRUCTION

TOTAL NUMBER OF BUILDINGS _____

NUMBER OF THIS BUILDING _____

A BUILDING
B WING
C FLOOR
D APARTMENT UNIT

LSC FORM INDICATOR

Health Care Form		
12	2786R	2000 EXISTING
13	2786R	2000 NEW

ASC Form		
14	2786U	2000 EXISTING
15	2786U	2000 NEW

ICF/MR Form		
16	2786V, W, X	2000 EXISTING
17	2786V, W, X	2000 NEW

* K7 SELECT NUMBER OF FORM USED FROM ABOVE

COMPLETE IF ICF/MR IS SURVEYED UNDER CHAPTER 21

SMALL (16 BEDS OR LESS)

K8 1 PROMPT 2 SLOW 3 IMPRACTICAL

LARGE

K8: 4 PROMPT 5 SLOW 6 IMPRACTICAL

APARTMENT HOUSE

K8: 7 PROMPT 8 SLOW 9 IMPRACTICAL

(Check if K29 or K56 are marked as not applicable in the 2786 M, R, T, U, V, W, X and Y.)

K29 K56:

ENTER E – SCORE HERE

K5: e.g. 2.5

*K9: FACILITY MEETS LSC BASED ON *(Check all that apply)*

A1. (COMP. WITH ALL PROVISIONS)
A2. (ACCEPTABLE POC)
A3. (WAIVERS)
A4. (FSES)
A5. (PERFORMANCE BASED DESIGN)

FACILITY DOES NOT MEET LSC

B.

K0180

A. FULLY SPRINKLERED (All required areas are sprinklered)
B. PARTIALLY SPRINKLERED (Not all required areas are sprinklered)
C. NONE (No sprinkler system)

* MANDATORY

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Reason: The provisions established in this appendix will provided the minimum standards for new facilities which voluntarily seek certification or accreditation in the Medicare/Medicaid program. These minimum standards **do exceed** some of the minimum occupancy requirements established within the body of this Code **but are** necessary to meet the requirements of the Centers for Medicare and Medicaid Services as specified in 42 CFR.

It is absolutely absurd to have a new facility to be permitted and constructed in compliance with the body of the IBC and then be immediately cited as ineligible for certification or accreditation in the Medicare/Medicaid program because the body of the IBC did not take into account all the requirements of the Centers for Medicare and Medicaid Services as specified in 42 CFR. This will allow for those states and jurisdictions that adopt the International Codes to also adopt this appendix if desired to help deliver and administer the federal CMS programs utilizing the IBC. The construction type conversion Table 1 was placed in the appendix to assist code officials in all parts of the county in assessing the appropriate construction type for use in the CMS forms.

This appendix will allow states to adopt the additional requirements of the Centers for Medicare and Medicaid Services as specified in 42 CFR so that compliance with this appendix can allow for the certification recommendation to be made by the State survey agency on the compliance of providers and suppliers with the conditions of participation, requirements for Skilled Nursing Facilities (SNFs), Nursing Facilities (NFs) whether freestanding, distinct parts, or dually certified, Intermediate Care Facilities for Mentally Retarded (ICFs/MR), Ambulatory Surgical Centers (ASC), inpatient Hospice facilities, Program for All inclusive Care for the Elderly (PACE) facilities, Critical Access Hospitals (CAH), Psychiatric and General Hospitals.

No additional cost for those facilities desiring to seek voluntarily certification or accreditation in the Medicare/Medicaid program since they are already required to meet these minimum provisions and requirements.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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